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ART. I.—*Remarks upon Inversion of the Uterus.** By W. L. SUTTON, M.D. of Georgetown, Ky.

It is somewhat natural that a physician engaged in extensive practice in any one department of the profession, should conclude that he has seen and is well acquainted with every form and variety of disease of that particular department. Thus we have Mr. Sharpe, and at one time Mr. Benj. Bell, denying that dislocations of the femur ever take place; and Mr. Bell, doubting, to the last, the occurrence of that variety of the dislocation, which the general experience of the profession shows to be most common. Circumstances of this

* A small portion of this article appeared in the *American Journal*, for July, 1842.—EDS.

kind should teach us two useful lessons. First—Not to be too ready to draw sweeping conclusions. Second—That the opinions of those highest in authority, and of the most extensive experience, should still be received with an eye to human fallibility.

I premise these reflections to a few observations, which I propose to offer on Inversion of the Uterus; an accident which Dr. Dewees, the highest obstetric authority in this country, and Drs. Denman, Hunter, and Ford, equally high in England, declare cannot be rectified when complete. That the cases which occurred in Dr. D.'s practice, if taken alone, or rather if *all* cases of inversion were such as occurred in his practice, then I should not doubt the correctness of his precepts. But as I have positive evidence that inversion may occur under more favorable circumstances—circumstances under which the doctor's authority has had a benumbing influence—I am disposed to offer to the profession such observations as my experience and reflections justify.

In the second case detailed in this paper, I returned the flaccid uterus into the vagina and desisted, not because of any insuperable difficulty in completing the reduction, but because I had a distinct recollection of Dr. Dewees' authority, and also of a former case which a long continued attempt had proved unmanageable:—whereas Professor W. H. Richardson, of Transylvania, who arrived perhaps three hours after the accident, readily affected a complete reduction.

I shall in the first place detail two cases which fell under my notice, and then add such remarks as may present themselves. In doing this I shall be compelled to speak much of Dr. Dewees' authority, I trust with that respect, which I feel for him as one of the great lights in our profession, and also with that freedom which the cause of suffering humanity seems to require.

Case I.—November 16, 1823, I was desired to visit Mrs. S., who was said to be in labor. When I entered the room, the midwife observed there was something wrong. Upon making examination, the first thing which attracted my at-

tention was a tumor, which, from its size and firmness, I, for an instant, took to be the head of a child; and supposing the shoulders had engaged the pelvis unfavorably, I ran my finger up the neck to liberate them; when I found that this tumor was a part of the mother, and nothing less than the uterus inverted and expelled. I now first learned that the child had been born. The midwife assured me that she did not have a worse time than common; that the placenta came away in good time, and without difficulty; that the tumor followed it closely; and that not knowing what it was, she did not know whether to permit its exit or not. I endeavored to replace it by grasping it between my hands, and after squeezing it for some time, pushing it in the direction of the outlet of the pelvis. But the tumor was so firm that little impression could be made upon it, and I was utterly unable to reduce it. Upon squeezing the uterus, several blood vessels spouted and bled for a short time. The patient had a ghastly aspect; lips bluish, pupils dilated, pulse very weak: yet the hemorrhage had not been considerable. She did not complain much, but I thought that was owing to the diminution of sensibility. Having become entirely satisfied that longer endeavors to replace the uterus would be fruitless, and must still hasten her dissolution, I desisted, and attempted to sustain her by stimuli, small in quantity and frequently repeated. In this also I failed. Her pulse soon disappeared, and she died in about three hours. This woman was said to be somewhat loose in her morals: had conceived three times and miscarried once; at which time she was said to have had a prolapsus uteri.

Case II.—October 19, 1835. Mrs. H. in labor with her first child. The uterus being expelled with the child, I saw her perhaps in half an hour. The placenta was yet partially attached to the fundus uteri; the body of the uterus completely expelled the vulva; no hemorrhage, great sinking, lips and countenance livid, pulse scarcely perceptible—the uterus not firm as in case 1st. Sent off for Dr. Richardson—separated the placenta, and by moderate and continued pressure returned the uterus into the pelvis. Dr. Richardson.

arriving some time afterwards, completed the reduction. She continued very weak and faint, and had frequent retching. This state was considerably altered by injections of starch and laudanum.

In this case, the membranes gave way several hours before the child was born, the presentation natural, pains rather short and at considerable intervals. The body was not expelled by the same pain that expelled the head, but the uterus followed the body by the same pain; the cord was rather short.

Evening.—She has taken small doses of stimuli during the day, also a dose of ol. ricini, which vomited her. Complains of great soreness, pulse weak and very quick, lochia proper; has passed no urine, nor felt any disposition to do so.

20th, 3 o'clock A. M. A great deal of pain in the uterine region; has passed no urine or fæces, nor feels any disposition; pulse small, somewhat hard and very frequent; severe head ache. Drew off about three pints of urine; bled to ℥viii; cold water to head; ol. ricini ℥ii. Evening. Medicine worked well; dejections said to be proper; pulse still frequent (about 150); head ache undiminished; no abdominal pain; lochia have been rather profuse, but at present proper. Sinapisms, which have been applied to the head, having failed to give relief, a blister was applied to the back of the neck; laudanum gtt.x. to restrain the operation of the oil. Discharge of urine natural.

21st.—Head still aches; pulse 132; bowels freely open; urine plenty; lochia proper; no milk. Blister drew well without materially relieving the head.

22d.—Head still aches; skin pleasant; pulse 132; no milk; lochia offensive and pale. ℞ Draw the breasts, and wash the vulva and vagina with chamomile tea.

23d.—Head somewhat relieved; skin pleasant; pulse 132; some appetite; no milk; urine scant; lochia offensive; bowels have not been moved for thirty-six hours; a little tenderness in the uterine region. ℞ Injection of chamomile tea into the uterus and vagina. Seidlitz powders to keep the bowels regular.

25th.—The head has nearly ceased to ache, but feels very sore. The injections into the uterus appear to have benefited her much. No fetor attends the lochia; feels comfortable; skin natural; bowels in good order; no milk, but some soreness of the breasts. From this time she continued to improve, but her health remained delicate for some time. She never had any secretion of milk. In the management of this case I had the benefit of Dr. Richardson's advice, who saw her twice with me after the reduction was affected.

Causes.—Dr. Dewees tells us*—"For the uterus to become completely inverted, several circumstances must combine; first, the fundus must most probably contract while the body and neck must be flaccid; second, a force or weight must be applied to the fundus which is capable of making it descend through the os internum: this force may be the power applied to the cord; and the weight may be the placenta itself, when it is engrafted immediately upon the fundus, or the pressure of some of the abdominal viscera."—par. 1269. Again. "The remote cause of this accident is the want of power or disposition in the body and neck of the uterus to contract. This may be occasioned by an over distention of this organ from an excess of liquor amnii; from the unusual size of the fœtus; from a compound pregnancy; from hemorrhagy; from passions or emotions of the mind; from exhaustion in consequence of previous disease; from long continued efforts to effect delivery, &c."—par. 1279. By others, force applied to the cord is considered as the cause, in most instances. I am very far from believing that what I cannot comprehend, must be unintelligible to others. I therefore only express my own opinion when I say that I do not understand the agency or necessity of the first circumstance, in the above mentioned combination, viz: "The fundus must most probably contract while the body and neck must be flaccid." I can very well

* In quoting from Dr. Dewees, I use the fifth edition. In the seventh edition, the latest I have seen, the chapter on inversion is not altered from the fifth.

understand how a contraction of the fibres of the fundus (the body remaining uncontracted), may diminish its convexity; but I do not comprehend how it should cause the fundus to dip into the body. Neither do I see why the contraction of the fundus would render the body less able to support it. We might suppose that the contraction would expel some of the fluids from the walls of the uterus, and thereby remove some of the weight. Again, if the fundus contracts, it thereby detaches the placenta; that is, if we consider its attachment at the fundus, as a necessary requisite to inversion; but in about half the cases which are fully reported, the placenta remained adherent. We are therefore, in my opinion, reduced to the second and only circumstance in Dr. D.'s combination of proximate causes; namely, a force or power applied to fundus uteri capable of making it descend through the os internum. There is no doubt that force applied to the cord sometimes produces inversion. Of this Dr. Meigs furnishes us with a strong example; Dr. Dewees one, in which he very strongly, and most probably, very justly, suspected this as the cause. But Dr. D. disbelieves this as the common cause; and in the two instances which I saw, this was not the cause—at least, so far as the midwife was concerned, and the persons present could be believed—I have myself every confidence in the statements made on each occasion. The midwife who attended the first case, was decidedly not rash, but would request assistance upon any difficulty presenting itself. In the second case, the circumstances and the manner of detailing them, corroborated by declarations of the patient and her friends, left no doubt in my mind as to the correctness of the statement.

I therefore believe that traction applied to the cord is not necessary. But perhaps the voluntary efforts of the patient acting upon a uterus suffering under atony and consequent flaccidity, are frequently the immediate cause of inversion. Although the cord in the second case is mentioned as "rather short," yet it was not unusually so; and my present impression is, that it did not pass round the neck or any limb—yet

no mention is made in my notes, by which I can say positively that the enquiry was made.

Of the cause of this atony, we are, and perhaps to a great extent must remain, ignorant. That the circumstances mentioned by Dr. D., to-wit: "over distention of the uterus from an excess of liquor amnii; from an unusual size of the fœtus; from a compound pregnancy; from hæmorrhage; from passions or emotions of the mind; from exhaustion from previous disease; from long continued uterine efforts to effect delivery, &c." may produce atony, I do not question; and I am disposed to believe that the last is the most usual. If, after a violent and protracted uterine exertion, there is, as may reasonably be believed, a corresponding relaxation, the uterus being emptied of its contents, is in a condition very fit to be protruded by the voluntary efforts, continued a little longer than the contractions of the uterus. I am disposed to believe that this is the true solution in my second case. The membranes gave way about three hours before the birth of the child. No mention was made of any unusual quantity of liquor amnii. The child was not above the ordinary size, single. There had been no hemorrhage; no passions or emotions of the mind; no previous disease. And although it was said that there was no inordinate straining, yet as ladies are sometimes encouraged to "help themselves" by voluntary efforts, that may very readily have been overlooked in the last agonies of labor.

This accident has been divided into complete and incomplete. The definition of complete inversion, as given by American authors, is different from that given by European writers; and I conceive more correct. By European writers the inversion is said to be complete when the fundus escapes through the os externum. (Den. par. 1317.) Dewees, on the other hand, defines a complete inversion to consist "in the fundus and body of the uterus passing through the os internum, or its being turned entirely inside out, to the very mouth of this organ." Again, "I have known the inversion to be complete and yet the fundus not escape from the vagina." (Id. 1266.) The incomplete is defined by Dr. D. as one, "in

which neither the body nor fundus has escaped through the os uteri." This definition is, I humbly think, much less perspicuous than we should expect from the author—one, indeed, which he forgets or disregards before he finishes the paragraph; where he describes the second degree of partial inversion thus: "where it has passed, perhaps half its length, through the os uteri." And third where "it is completely inverted except a portion of the body and neck." I conceive when half the organ has passed through the os uteri, the fundus "must have entirely escaped through" it. And I think that the difference between his second and third division of incomplete inversion is somewhat indistinct. Again, the incomplete inversion is divided into that in which the protruding part is strangulated by the mouth, and that in which it is free.

The Symptoms which should induce us to suspect this accident are "a sudden, severe, and distressing pain in the region of the uterus; and effort to force or bear down; nausea and sometimes vomiting; ghastly aspect; great faintness with more or less hæmorrhage; cold clammy sweats, pulse small, frequent or extinct. A variety of nervous symptoms may also occur of the most distressing kind, arising most probably from the new situation which the abdominal viscera are forced to take, when deprived of the support of the uterus." Although these symptoms should lead us to suspect the presence of inversion, yet examination alone can be depended on for its ascertainment, as the following case will show. In May, 1839, Mrs. C., after a labor of usual duration, was delivered of a son weighing twelve pounds. She remained quite comfortable for some fifteen or twenty minutes, when she was seized with a sense of faintness, difficult and hurried respiration, constant retching, livid, ghastly countenance, cold sweat, weak, quick pulse. Upon examination she was found to have no inordinate hæmorrhage, and the uterus was found well contracted in its proper place. A liberal administration of stimuli, complete rest, and sinapisms to extremities, gradually restored her to a state of comfort. Dr. Ramsbotham also informs us that "collapse occasionally comes on after labor

without any apparent cause; the patient becomes extremely ill, the pulse flags, she becomes restless, and only expresses her sufferings by a groan." This he ascribes "to a want of accommodation of the several parts within the belly to each other in the new state of things."

Dr. Dewees thinks that profuse hæmorrhage and severe pain distinguish the incomplete inversion from that which is complete. European writers, also, although not making it a diagnostic mark, speak of the complete inversion not being in all cases attended by profuse hæmorrhage. Let us examine the cases at present available, and see how they support the distinction.

In Dr. Dewees' first case considerable hæmorrhage is mentioned as present; but pain is not. Second case—The expulsion of the placenta was attended by great pain and great flooding; this was on Friday. On Sunday there was a "renewal of flooding and pains resembling labor pains." But the inversion was not determined to be present until Tuesday. Then no mention is made of pain; but there "was a continuance of uterine discharge." This was the case of partial inversion, which, in despair, the Dr. rendered complete; and the woman was almost instantly "relieved from much of the anxiety and faintness she had before experienced." Not a word said about relief from pain. In third case, nothing is said of pain, except that occasioned by pulling at the cord. There is said to have been "some hæmorrhage," and "a considerable flooding ensued" upon removing the placenta. In case fourth, there was "some hæmorrhage, and considerable pain" after the extraction of the placenta. Three hours after, when the Dr. was called, no mention is made of pain being present; but it is perhaps fair to infer that it was. But "the flooding did not appear to be sufficient to account for her present situation." Of case five we have no detail of symptoms except that the patient was almost exhausted by hemorhage and suffering, and almost pulseless. After completing the inversion "she seemed to improve as a moderate reaction ensued; but it was short-lived; she sank and died. These were all cases of partial inversion. In case sixth nothing is said of symptoms, but the "patient was not

so much exhausted;" this was a case of complete inversion and did well.

In Dr. Meigs' first case "the hæmorrhage was enormous;"* nothing said of pain; this was a case of complete inversion. Second case is given on hearsay. The hæmorrhage was said to be profuse, and she was thought to be in extreme danger; but nothing further is given as to the symptoms present. The Dr. thinks, apparently from an examination, two years after the accident, that the inversion was complete. In the two cases which I have seen, there was absence of considerable hæmorrhage and pain—both complete. It is right to add that on separating the placenta, in my second case, there was no marked hæmorrhage.

From an impartial review of all these cases, I doubt whether Dr. Dewees' diagnostic will be supported. In the first place, several of his cases of partial inversion are without very considerable hæmorrhage, and where the flooding was worse than usual, a partial adhesion of the placenta existed. Again, in his case of partial inversion rendered complete, he does not say anything of relief from a hæmorrhage, but from anxiety and faintness.

In Dr. Meigs' first case, which was one of complete inversion, it is said expressly that "the hæmorrhage was enormous." The phraseology of this case would, by fair interpretation, invalidate Dr. Dewees' opinion; and yet I think it probable that the facts of the case may be different from what we would be apt to suppose at first sight; because no mention is made of profuse hæmorrhage continuing after Dr. Meigs' arrival; and especially nothing of it upon separating the placenta. I therefore think it probable that the "enormous hæmorrhage" may have taken place whilst the inversion was yet incomplete. So far as two cases would go, those seen by me would show that free hæmorrhage is by no means a necessary attendant on complete inversion. It may be well to compare Dr. Dewees' third case with my second.

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*Phil. Prac. Mid., art. Inversion.

His was partial—some flooding when he arrived—considerable flooding upon separating the placenta; mine, no considerable hæmorrhage either before or after detaching the placenta. Altogether, I am disposed to think that Dr. Dewees' diagnosis, so far as regards hæmorrhage, will be found entitled to much respect but not decidedly established.

As regards pain as a distinguishing symptom, I do not think his cases establish the claim; as pain is not mentioned as a prominent symptom except in the second and fourth cases. In the second, nothing is said of pain after Sunday morning, two days before Dr. D. saw the patient. His fifth and sixth cases are given in terms too defective to justify any conclusion. In Dr. Meigs' cases nothing is said of pain. In mine, there was no marked pain; but the state of exhaustion, in which both were found, led me to doubt whether freedom from pain was not occasioned by exhaustion of sensibility.

Treatment.—Of the treatment of partial inversion I shall say nothing; and in my observations on the treatment of that which is complete, I shall endeavor to show that it has been remedied, rather than offer anything new as to the manner of operating.

I would observe, in the first place, that an inverted uterus may be found in two different conditions: First—Contracted; second—Flaccid.

The condition in which it is found must determine our mode of proceeding. If the uterus be found contracted, then I am ready to agree with Dr. Dewees, that its replacement is utterly impracticable, at least so long as it remains contracted. Whether a large dose of opium would in any case induce a relaxation, I cannot say; Dr. D. is decidedly of opinion that it would not, and that its only effect has been to relieve pain. Yet if I should ever have another such case, I shall unquestionably try it. My hopes of benefit from a large dose of laudanum, would be founded upon the influence which is known to be exerted by it, in rendering the uterus softer, when it is necessary to turn a fœtus in the uterus, after the waters have been some time discharged. It would be a hope,

not a confidence. But the condition of the patient would render an opiate proper.

If the uterus is found relaxed, I would in the first place administer a large dose of laudanum—say a teaspoonful; both as a means of removing the state of extreme exhaustion and as a means of preventing the contraction of the uterine fibres; next, if the placenta still adhere (as most probably would be the case), I would separate it; and, thirdly, attempt the reduction. This I would do in one of two ways. First, by grasping the uterus with both hands, the fingers being spread over its surface, pressing it for some time and then directing its body towards the axis of the vagina, as is recommended by Dewees, and practiced by myself. When I had succeeded in lodging the uterus in the vagina, I would press it upwards with the points of two or three fingers, so as to carry the fundus and body through the mouth of the organ. For it is evident that when advanced thus far in the operation, the directions given for the reduction are no longer likely to be efficient. Or, secondly, by pressing the point of one or two fingers against the fundus, and carrying it upwards through the mouth, as was performed by Dr. Meigs. Upon failure by one mode, I would try the other. I would detach the placenta, because its presence would greatly diminish the pliability of the uterus, and considerably impede the reduction; and because it is shown, as far as one case goes, that a placenta may be detached from the inverted uterus, even in a state of atony, without considerable hæmorrhage. I say *one* case, although I presume Dr. Meigs' first case might be cited in addition, as nothing is said about hemorrhage upon removing the placenta. It will be observed, that in his case, the uterus alternately contracted and relaxed, and especially upon handling it contracted, as is observed when in its proper position. In this it differed from both cases which I saw. In my first, it was permanently contracted; in the second, no contractions were observed, even in attempting its reduction. It however contracted soon after its rectification.

A question may arise here: were Dr. Meigs' first case and

my second, uteri completely inverted? I must say that I should not suppose any question as to the fact could arise, had not Dr. Dewees labored to prove that an uterus never was restored after being completely inverted, and expressed his belief in the impossibility of its being done. Inasmuch as I consider his definition of complete inversion as the true one, I will try the cases by it. It is contained in par. 1266, *Syst. Mid.*, and runs thus: "By a complete inversion, I mean the passing of the fundus and body through the os internum, or being turned entirely inside out, to the mouth of this organ; when this takes place, the mouth of the uterus is looking upwards, and is within the cavity of the abdomen. But it is not necessary to the complete inversion, that the body and fundus escape through the os externum; as this condition may happen, and yet the uterus be concealed within the vagina." Now, in the cases under consideration, the inversion was either partial or complete. As I consider them perfectly parallel cases, except the hemorrhage and alternate contractions, in Dr. Meig's case, I shall refer principally to the one seen by myself. If I were to say that the fundus extended full six inches beyond the vulva, I am satisfied I should be within the truth; there was no hemorrhage, no pain; no offset, indicating the place where the body escaped through the mouth, was perceived. Take now the Dr.'s definition, which is certainly the correct one, and his symptoms attending complete inversion, and if they do not show the case to have been one of complete inversion, I shall utterly despair of ever proving anything.

My respect for Dr. Dewees prevents my supposing that he would [illegible]e any unfairness in his criticisms; yet I certainly do not see the correctness and sufficiency of some of his strictures in proving that the cases of Dr. White and Dr. Teallier were not complete inversions. He declares Dr. White's case to have been partial, because the "woman was in great pain and had lost much blood." He adds: "neither of which circumstances attends complete inversion; for it seems to be agreed that there is not much hæmorrhage at this time, and I

know that pain immediatly ceases when it becomes complete, as I shall state presently." "This patient 'was very faint and no pulse could be felt in either arm;' a condition which constantly attends the partial inversion; especially when the mouth of the uterus contracts firmly upon the body, producing a strangulation of the uterus; which was precisely the situation of Dr. W.'s patient, for he declares 'the neck was a little contracted.' Now, it must be obvious, upon a moment's reflection, that if the inversion were complete, the mouth of the uterus cannot be felt; for this part now offers its opening to the cavity of the abdomen and is not tangible by the finger." (Par. 1286—7.)

I am free to admit that I am not aware of any case of complete inversion being characterized by great pain, but Dr. D. has certainly forgotten to redeem his pledge to show a state in which "pain immediately ceases when it (inversion) becomes complete." I understand, when it is said the patient had lost much blood, that we have a very fair right to infer that the bleeding had abated on Dr. W.'s arrival—"she was in great pain and had lost," &c. After the Dr. had completed the inversion in his second case, would it have been fair or true to have said that the "inversion was not complete because she had lost much blood?" Again: "She was very faint and no pulse could be felt in either arm," "a condition which constantly attends a partial inversion, especially if strangulated." Now, I am truly glad that it is not added that great faintness and extinguished pulse do *not* attend complete inversion, or uterus not strangulated. An examination of his own cases would have shown that strangulation of the uterus was not necessary to produce great faintness and exhaustion, or even death itself. And my first case proves that a complete inversion is no infallible indemnity against the same state. Again, where Dr. White says "the neck was a little contracted," Dr. D. considers it conclusive that the inversion was partial and strangulated, because if the inversion were complete, the mouth of the uterus could not be felt. With due submission, I would suppose there would be no difficulty in determining

that the neck of the uterus was "a little contracted" by feeling that portion of it which was, at the time, external—even if we could not touch the os tincæ. I have no hesitation in saying that the neck, as well as body of the uterus, was contracted in my first case, and that from actual and careful examination, although I could not insert my finger into the os uteri. But in Dr. Teallier's case, there was, on the 10th day after delivery, "a smooth red tumor of the size of a large pear, the large end resting on the thighs, the small tied in the pelvis. No hæmorrhage and little pain." Why was this declared to be a case of partial inversion? "Because the neck of the uterus is charged with the difficulty of reduction, in the first attempts for that purpose."—Par. 1325. If the neck is not the cause of difficulty in all these cases, in the name of common sense, what is? And lastly, Dr. D. proves that a case, recorded in the New England Journal, is also one of partial inversion. "First—Because there was too much hæmorrhage and too many distressing symptoms. Second—Because the author expressly and conclusively determines this point, by saying the neck of the uterus reached above the pubis."—Par. 1307. To the first branch of the proof, it is not necessary to repeat what was said on the same subject when speaking of Dr. White's case. To the second branch we may oppose one part of Dr. D.'s definition of a complete inversion. "When this takes place, the mouth of the uterus is looking upwards, and is within the cavity of the abdomen." I will not say that these are convertible phrases, but I do think that the difference, if any, is too slight to be laid hold on by a liberal critic. I think that a careful and impartial examination of Dr. D.'s criticisms will result in a conviction, that he has failed to prove that the cases referred to, were not cases of complete inversion. At the same time, I candidly acknowledge that it is only since my second case, and a more thorough consideration of the subject, occasioned by the result of that case, that I feel myself authorized to come to a conclusion different from that of the author.

A few words concerning Dr. Dewees' recommendation to

convert a partial strangulated inversion, into a complete one. I expressly disclaim any idea of ability to offer any thing decidedly for or against the proposition; but simply to express some reflections which offer themselves to my mind, upon an examination of the cases above referred to. The object is to relieve the patient from pain, flooding, and the various nervous and distressing symptoms. Its usefulness is founded upon one successful case. But all the cases on record, so far as I know, go to show that all these symptoms attend all cases of inversion, whether partial or complete, strangulated or free; not, to be sure, with equal severity in every case; but Dr. D.'s first case proves that the very worst train of symptoms, and even death itself, may attend a simple dipping of the fundus; and my first shows that the like train of symptoms, and the same result may attend the complete inversion—as I suppose where it was instantaneous, and of course, not strangulated even for a moment. We may suppose it probable that the Dr. himself had no overweening confidence in the remedy, because nearly twenty years after his successful case, he was called to a patient who "was nearly exhausted by hæmorrhage and suffering, and almost pulseless;" yet he "persevered in the attempt at reduction, nearly two hours."—Note to par. 1301. At last he completed the inversion, but the woman died. Thus we see that he truly considered it a dernier resort, and I think we may add "anceps remedium." Perhaps, where there is a strangulated inversion with considerable hemorrhage, upon finding it impracticable to reduce, we might complete the inversion. It is certainly proper to know and recollect what has been the treatment, and result, in as many cases as possible. Burns, in his system of midwifery, refers to the following cases. The appearance of gangrene from strangulation took place. The womb was scarified and the swelling quickly disappeared. The patient got well. In another case, the uterus was mistaken for a polypus, and the ligature applied. The mistake being discovered, it was instantly withdrawn, but the woman died in a few days.

In conclusion, I hope I am distinctly understood as not speaking with authority. I only wish to bring the subject before the profession for their consideration: knowing that they are entitled to the reflections of their most humble member, most especially upon subjects, concerning which the experience of the most exalted must of necessity be very limited.

ART. II.—*A Case of Cataract Complicated with Tremulous Iris, successfully treated.* By WM. M. BOLING, M.D., of Montgomery, Alabama.

The following case of "Tremulous Iris" combined with cataract, I am induced to offer for publication, from meeting with the following passage in Lawrence's Treatise on the Eye. Speaking of the preternaturally fluid state of the vitreous humour, on which the tremulous iris depends, he says:—"Usually this state of the vitreous humour indicates a diseased condition of the internal parts of the eye—and we find that the retina has lost its sensibility in such cases. Such a state of the vitreous humour cannot be remedied, *and if a catarat be present, its removal will not improve vision.*"

Isaac, a negro slave, between fifty-five and sixty years old, of a large and powerful frame, and good general health, twenty-five years ago become entirely blind, soon after which, his left eye was operated on for cataract. A high degree of inflammation followed the operation, and any improvement in his vision was for a long time despaired of. The inflammation, however, subsided, and gradually his sight improved, so that at the end of a year a very useful degree of vision was obtained. He recently changed masters, and his new one, anxious to have his sight improved, if possible, brought him to me for that purpose.

May 29th, 1843.—His eyes presented the following appearance. The pupil of the left eye was clear, and a good deal

dilated. The slightest motion of the head caused the free margin of the iris to float about in a very peculiar manner. A slight movement of the head to the right would cause the left or outer portion of its free margin to become narrowed, or folded on itself so as to appear narrowed—reverse the motion, and the other side would assume the same appearance. Throw the head back and its margin would float forward—or throw the head forward and it would float back. The pupil was almost entirely uninfluenced by light, yet the vision was tolerably good, but had failed some within the last year. In the right eye was a cataract of a white color. The pupil was very much contracted. The iris had the same tremulous motion, but its movements were only backward and forward. This was owing to adhesions between the pupillary margin of the iris and the capsule of the lens. The application of belladonna produced scarcely a perceptible degree of dilatation, but caused the margin of the pupil to have a ragged, uneven appearance. No better effect was produced by the application of the bruised leaves of the stramonium, for several hours to the eye. He had a slight perception of light with this eye, when placed in a darkened room, with one open window, the eye directed towards it.

June 2d.—I operated by breaking up the cataract, which proved to be very soft. After the introduction of the needle, I discovered that the capsule was opaque, and became fully satisfied respecting the adhesion between it and the iris. I separated, completely as I thought at the time, the adhesions, and depressed the capsule, together with some of the larger portions of the lens below the axis of vision. Some small portions of the lens fell into the anterior chamber. Immediately on the separation of the capsule, the pupil became largely dilated. On the withdrawal of the needle, which was much more delicate than the cataract needles in common use, a very perceptible quantity of the vitreous humour followed it. I closed the eye immediately, and did not allow him to open it for several days. The usual means to prevent inflammation in such cases, were resorted to, and so little incon-

venience did he suffer, that happening to call about a week after the operation, I found that he had gone out of his own accord to attend to his usual occupations. I made him return to his room—but from the 20th of June, he required no further attention.

Calling this morning (October 20th, 1843), to examine his case, I find the pupil of the right eye more contracted than that of the left. The *lateral* motions of the iris are now present in the right eye as in the left. A very narrow crescent-shaped portion of the opaque capsule is apparent, bordering the upper fourth of the circumference of the pupil. The rest of the pupil is quite clear. His vision out of the right eye (which is still less perfect than that of the left eye) is such, that, without glasses, he can readily count the number of fingers, or distinguish a pencil, watch-key, penknife, &c., when held up before him.

This case proves that a preternaturally fluid state of the vitreous humour, with tremulous iris, does not in *all cases* imply that the eye is incapable of a very useful degree of vision, or that the removal of a cataract under such circumstances would be entirely useless. The appearance of the iris in such cases is singular and striking, and would seem to depend on something more than a want of support from a softened state of the vitreous humour. To my mind it conveys the idea of paralysis, and this idea is supported by the imperfect manner in which the iris responds to light.

October 20th, 1843.

ART. III.—*Complete Aphonia, successfully treated.* By MARTIAL DUPIERRIS, M.D., of Havana.

J. S. Rosh, aged twenty-six, of Alabama, visited Havana in January last, with complete aphonia.

He stated that in April preceding, he was taken with an

acute pain in the left side, for which he was bled, blistered, &c., which relieved the acute pain, but he was troubled with a dull heavy pain, which, in despite of every remedy prescribed, continued until July, when it extended to the epigastric and right hypochondriac regions. His throat was also attacked about the same time, which soon resulted in complete aphonia; his eyes also became very weak and inflamed. He was then put upon the use of iodine, and a constant counter-irritation was kept up over the chest and epigastric region, by which he got some slight relief from the pains in the side, &c.; the throat, however, remained the same. For the cure of the latter, various gargles, the application of lunar-caustic, &c., were tried in vain. His physicians made every effort to cure him until December; they then advised him to visit Havana, and try the benefit of a milder air, as they discovered whenever the weather became damp and cold, his throat was more swelled both internally and externally, and more painful, with a considerable augmentation of the other pains of which he complained.

After being in Havana a short time and experiencing no relief, he placed himself in the hands of a physician who cauterized the throat internally, three times a week, with a saturated solution of lunar-caustic, and used blisters externally; under this treatment the pain and swelling of the throat was somewhat alleviated, but the loss of voice continued. After trying this treatment six weeks he placed himself under another physician. The latter, discovering considerable tenderness on pressure over the cervical and dorsal vertebrae, and a slight lateral curvature of the spine, with constant twitching of the muscles of the face, thought proper to apply issues to the spine, and prescribe constant rest in bed. The patient, besides, took occasionally carb. of iron, combined with sup. carb. soda. After the issue, which was opened over the middle dorsal vertebræ, had been kept discharging about a month, the pains experienced in the different parts of the body disappeared, save in the throat; his eyes, however, continued weak, there was no diminution in the twitching of the

muscles of the face, and the aphonia continued. An issue was then opened on each side of the neck, just below the lobe of the ear; in a short time the twitching of the muscles of the face ceased; his eyes became less painful and sensitive; and his voice slightly restored so that he could speak in a low whisper. The issue over the spine was then allowed to heal after being kept open six weeks, and he was advised to use the sea-bath daily, which he continued to do for a month. At the end of this time his general health was much improved, there was much less tendency to swelling of the throat and no pain of the body, but the voice was still very feeble.

It was at this period he consulted me relative to the propriety of trying electricity. I advised him first to use a caustic of nitrate of mercury to his throat, and to take internally pills of nitrate of silver, which he agreed to; under the use of these remedies the voice daily became stronger, and in two weeks he could speak quite plainly and without pain. He then left Havana for Alabama, and has since written a letter of thanks to his last two attendants stating that his health and voice were entirely restored.

October 20th, 1843.

ART. IV.—*Remarks on the Cure of Consumption.* By WM. A. M'DOWELL, M.D., of Louisville, Ky.

"Cure of Consumption," or some such title, has, in times past, been assumed by so many swindling empirics, as the title of books or essays, which are mere laudations of themselves and their nostrums—their plasters, pills, or drops—compositions known only to them and some German or Turkish magician, or recommendations of some kind of long horn, valvular tube, or other *respirator* to cure by inflating the lungs—all puffed up and patented to the sole use and benefit of the wonderful discoverer, that it is not at all wonderful

that the medical profession, disgusted with such knavery, should have grown weary of wasting their time in reading works that appear under such titles.

To this circumstance, at least, I am disposed to ascribe a less degree of attention than I think is merited, to a work published by me a few months since entitled "A Demonstration of the Curability of Pulmonary Consumption," &c. This work is the result of 25 years experience, investigation and labor, in which is set forth fully, fairly, and without reserve, a mode of treatment by which at least a proportion of from one-half to two-thirds of such cases of tubercular consumption (taken as they ordinarily occur to the practising physician) may be cured. Whether well or ill written, the full detail of a course of treatment, which actually effects cures of a hitherto unmanageable disease, merits attention, come whence it may.

The curability of consumption no longer rests on the results of my individual experience. I have, since the publication of my essay, above referred to, received communications from physicians in various quarters, who have cured cases treated on the plan therein suggested. The subjoined summary of which, together with the summary of results in my own practice, I trust will at least suffice to satisfy my brethren of the profession, that it might be as well to give it a trial, as to continue to prosecute the mode or modes of treatment, which so uniformly, through a period of more than two thousand years, have proved so signally unsuccessful. Almost any new method might be as safely pursued, as old ones by which, through so long a period, nearly all cases have been lost

From the 1st of January, 1843, to January, 1844, I have treated 84 cases of consumption; of these 12 have died, and 36 have been cured. A large majority of the remainder under treatment, are either convalescent, or improving; affording a fair prospect of a greater proportion of recoveries than the above.

Of the above cases, 61 were of Kentucky; 7 from Indi-

ana; 4 from Tennessee; 4 from Louisiana; 3 from Mississippi; 1 from Virginia; 1 from Pennsylvania; 2 from Massachusetts; and 1 from New York.

Cures of cases have been reported to me by the following gentlemen:—three by Dr. N. Field, of Jeffersonville, Ia.; two by Dr. Griffith, of Jeffersonville, Ia.; two by Dr. B. H. Hawkins, of Raleigh, Tenn.; one by Dr. J. J. Moorman, of White Sulphur Springs, Va.; one by Dr. Shuck, of Lebanon, Ky.; one by Dr. Jennings, of Baltimore, Md.

Dr. Morgan of Rockbridge county, Virginia, whom I sometimes met in practice whilst I resided in Virginia, and who has for nine or ten years past treated the disease on the general principles suggested in my essay on consumption, informed me in December, that he had cured quite a considerable number of cases, and shewed me some of the rescued persons. He promised me to report his cases for insertion in this communication, but they have not yet come to hand.

January, 1844.

[A list of the names, residences, and present condition of the eighty-four cases in the above summary, which Dr. McD. does not feel himself at liberty to publish, is left at the office of the Western Journal of Medicine for the inspection of physicians or other persons, whose interest in the subject may render them desirous of a more minute investigation of the matter.—Y.]

REVIEWS.

ART. V.—*The Elements of Materia Medica and Therapeutics.* By JONATHAN PEREIRA, M.D., F. R. S. & L. S., Licentiate of the Royal College of Physicians in London; Member of the Royal College of Surgeons; Fellow of the Royal Medical and Chirurgical Society; Corresponding Member of the Society of Pharmacy of Paris; Honorary Member of the Pharmaceutical Society of Great Britain; Examiner in Materia Medica and Pharmacy to the University of London; and Assistant Physician to, and Lecturer on Materia Medica at, the London Hospital. *With numerous illustrations.* From the Second London Edition, enlarged and improved. *With notes and additions.* By JOSEPH CARSON, M.D., Professor of Materia Medica and Pharmacy in the Philadelphia College of Pharmacy, and one of the Editors of the American Journal of Pharmacy. In two vols., 8vo. pp. 714 and 852. Philadelphia. Lea & Blanchard. 1843.

"After a long and tedious discourse," says old Burton, in his Anatomy of Melancholy, "of these six non-natural things, and their several rectifications, all which are comprehended in diet, I am come now at last to *Pharmaceutice*, or that kind of physic which cureth by medicines, which apothecaries most part make, mingle or sell in their shops. Many cavil at this kind of physic, and hold it unnecessary, unprofitable to this or any other disease, because those countries which use it least, live longest and are best in health, as Hector Boëthius relates of the Isles of Orcades, the people are still sound of body and mind, without any use of physic; they

live commonly one hundred and twenty years. Paulus Jovius, in his description of Britain, and Levinus Lemnius, observe as much of this island, that there was of old no use of physic amongst us, and but little at this day, except it be for a few nice, idle citizens, surfeiting courtiers, and stall-fed gentlemen lubbers. The country people use kitchen physic, and common experience tells us, that they live freest from all manner of infirmities, that make least use of apothecaries' physic."

Times are greatly changed in that wonderful island since the days of Paulus Jovius, and of the quaint author of the Anatomy of Melancholy, and men have changed with them. No doubt, now, as then, the "nice, idle citizens" take more than a fair proportion of the apothecary's physic, but the products of the culinary art no longer suffice for the happy inhabitants of the country. Hygeia has ceased to be the propitious divinity, lengthening the days of men to six score years, and the present short-lived race of mortals are doomed to seek succor from the disciples of Esculapius. It were indeed bad for our numerous "flourishing" medical schools, with their crowds of young aspirants after fees and fame, if the consumption of physic were not increasing, *pari passu*, with the growth of our population. The splendid work, the title of which stands at the head of this article, affords indubitable proof of the prosperous condition of the apothecary's art. Here we have nearly sixteen hundred closely printed pages on Materia Medica; not diluted—spun out to make a big book, but pages of condensed matter, the writer being evidently a man who has a just appreciation of the value of time. The author speaks of it as merely a faithful "outline" of this department of medicine, and considering the vast range of subjects embraced in it, it is surprising that the work should have been brought within such reasonable limits. Besides what belongs strictly to Materia Medica, it contains a concise account of the most important modern discoveries in Natural History, Chemistry, Physiology, and Therapeutics, in so far as they pertain to Pharmacology. It is a singularly

complete work. We have heard it objected to, as being too learned for the medical pupils of our country; but, we confess, we like it all the better for its learning. The study necessary to master it will make the more accomplished practitioners. It exhibits the true connexions between pharmacy, chemistry, physiology, and therapeutics, and the reader of Pereira must have a pretty thorough acquaintance with these branches in order to read him with satisfaction. It is the very work, in our judgment, which the wants of the American profession demand. It will give a higher interest to the study of Materia Medica, and enhance its dignity as a branch of medical education, because it is exhibited in this work more fully than ever before, in any English treatise, in its philosophical bearings. Every practitioner ought to supply himself with a copy of it for his own use, and especially for the benefit of his pupils, the thorough study of which should make an indispensable part of their medical education.

Prefixed to the elements is a *Tabular view of the History and Literature of the Materia Medica*, beginning with Egyptian medicine, seventeen centuries before the christian era, extending over all countries where it has been cultivated, and coming down to the publication of Dr. Dunglison's Therapeutics and Materia Medica in the year just closed. This is a fair specimen of the character of Pereira's Materia Medica. It omits nothing. When a subject is barely introduced, such references are given by the author as will enable the curious reader to pursue his researches to the utmost extent of his wishes.

The first part of this work treats of General Therapeutics, including psychical, or mental remedies, as external and internal affections of the mind; and corporal remedies, as the imponderable agents, light, heat, electricity, and magnetism; hygienic agents, as food, exercise and climate; and pharmacological agents, or medicines, the means of ascertaining their effects, their active forces, their physiological effects, their absorption into the living system, their operation by nervous

agency, the parts affected by the remote action of the medicines, the general nature of the effects of medicines, the modification of their effects by circumstances, their therapeutical effects, the parts to which they are applied, and their pharmacological classification. We shall not attempt to follow the learned author in the discussion of all these topics, much less to give an analysis of his matter, which would be impossible in a space much more limited than than that of the work itself, but shall select, here and there, such passages as may appear to us likely to interest our readers, and afford to them, at the same time, the means of judging of the value of these Elements.

Under the head of internal affections of the mind, our author has the following remarks:

"Emotions and passions of the mind have a most powerful influence upon the disorders of the body. Much of the evidence, however, which establishes the truth of this statement, is rather curious than practically useful, and as the general fact is well known and admitted, I shall confine myself to a few practical illustrations. *Hope* is a mildly stimulating or tonic passion, which may be beneficially employed in all diseases, and which proves injurious in few, if in any cases. Most patients receive with satisfaction and benefit, assurances of the prospect of recovery from their medical attendant. Even in diseases of a mortal charcter, life may be sometimes prolonged, by concealing from the sufferer the fatal nature of his malady. I fully agree with the learned President of the College of Physicians, Sir H. Halford, that the first duty of the physician is 'to protract the life of his patient by all practicable means.'"

We do not believe that the physician is required by any obligation to deceive his patients. It is unquestionably his duty to protract their lives to the utmost of his ability, but we can readily suppose that a few hours of painful life might be purchased at too high a price. It is the right of the patient to be informed of his true condition; he has claims upon his physician to deal with him in candor, as well as in gentleness; and we doubt whether a revelation of the truth to the sufferer, if done with tenderness and judgment, has ever giv-

en a fatal termination to disease, or materially shortened life. An amiable weakness of our nature inclines us to deceive the sick upon a question, to them, of the most momentous concern. It is better that we should resist the temptation, and act towards our patients as becomes christians and honest men. But it is no part of our purpose in this article to write a homily, and so we proceed to Materia Medica.

The vitiated air of cow-houses as a remedy in pulmonary diseases, we supposed had gone out of use since the time of Beddoes; but Dr. Pereira publishes a note from his pupil, Mr. Steinhausen, of Saxony, from which it would appear that this remedial agent still holds its ground in that country.

"In Germany," he says, "the balsamic air of cow-sheds is commonly recommended as a preventive in suspected pulmonary disease, or as a means of prolonging life in a confirmed phthisis. Although this latter disease is comparatively of rare occurrence in Saxony, yet several cases have fallen under my observation in which this plan of treatment was adopted. The mode of effecting it has varied according to circumstances: in some cases the patient has merely retired from a crowded town to a farm-house; in others, the sitting and bed-rooms have actually been converted into residences for cows. Of the former I have known several instances, where patients have been greatly benefited by sleeping in apartments built over cow-stalls; and this, I should say, is the most usual plan adopted."

The benefit derived from breathing this air by pulmonary invalids, our author thinks, is referrible in part to its warmth and moisture, but he supposes that the carbonic acid which is also present, may dilute the oxygen of the air and render it less stimulating and hurtful.

Cold, as a curative agent, is treated of with sufficient minuteness, but our author has not recommended it as highly as it deserves to be. The profession is not yet alive to the value of ice, cold drinks, and cold applications in our febrile and inflammatory affections. Many practitioners are to be met with who are still afraid to allow patients laboring under fever, cholera infantum, and similar complaints, the free use of ice. So benign have we found the action of cold in such

cases, that we could wish every writer on Materia Medica to insist upon the application of cooling remedies wherever admissible, as among the greatest improvements in modern medicine.

Under the head of *voltaic electricity*, we find the following suggestion, which if not new to our readers, deserves to be quoted for its ingenuity:

"*To electrolyze urinary calculi.* Prévost and Dumas have proposed voltaic electricity as a means of destroying some kinds of urinary calculi. They state that a fusible calculus, in one case, contained in a basin of water, in another introduced into the bladder of a dog previously distended with water, was completely disintegrated by voltaic electricity, from a battery of 120 pairs. The wires were introduced through a canula into the bladder. The operation, it is said, did not occasion the least apparent uneasiness to the animal. During the action of the battery on the calculus, the bases and phosphoric acid first arrived at their respective poles, then re-entered into combination, forming a pulverulent salt. Bonnet proposed to inject the bladder with a solution of nitrate of potash, and to galvanize the calculus in this liquor. The nitrate will be decomposed; the phosphates dissolve in the liberated nitric acid,—and the uric acid, or urate of ammonia, in the disengaged potash. These propositions are ingenious, but at present no practical use has been made of them."

Of all forms of electrical apparatus, that which is most simple, convenient and powerful, is the magneto-electrical machine, devised by Mr. E. M. Clarke, of London, very perfect instruments of which kind are made in this city, by Mr. Jacob Walter. It is an instrument which deserves the attention of the profession. Interesting cures by its agency are reported in all the journals of the day, and we have ourselves witnessed its beneficial application in some cases of neuralgia. It has the advantage over all other electrical instruments of being independent of the weather, requiring no acid for its excitation, and being always in readiness for action. In suspended animation, whether by narcotic poisons, lightning, drowning, or the mephitic gases, its application would appear to have

been successful under circumstances which would not have admitted of the employment of any other remedy.

We pass over the chapter on Food, as we propose to make the Treatise on Diet by the same author, the subject of an article in a future number. The chapter on Climate is one of great interest to the pulmonary invalid, but the reader must consult the work itself for full information on the subject.

The following remarks on the active forces of medicines have practical interest:

"Chemical changes are sometimes produced in the secretions of distant parts by the internal use of certain agents. Thus the qualities of the urine are modified by the administration of acids or alkalies. These modifications or changes depend, at least in a considerable number of instances, on the chemical influence of the substances swallowed. For when either acids or alkalis are swallowed, they pass out of the system, in part at least, by the kidneys, and in the urine they possess their usual chemical properties, modified by the presence of any substances with which they may have united. Moreover, the qualities which they impress on the urine, are similar to those which they produce when added to this secretion after its evacuation from the bladder. Thus, by the internal use of alkalis, it has been found that the natural acidity of the urine may be destroyed, and an alkaline quality substituted for it: the same condition of urine is produced by the addition of alkalis to this fluid out of the body. Again, the internal use of soda or magnesia may give rise to the appearance of white sand (phosphates) in the urine: and the same kind of deposite is produced in healthy urine by the addition of a few drops of an alkaline solution to it. Furthermore, by the administration of acids (sulphuric or hydrochloric) phosphatic deposits are diminished or entirely prevented, while the employment of alkalis promotes them: and a few drops of hydrochloric acid added to urine, in which the earthy phosphates are suspended, dissolve them. In other words, as the modifications which acids and alkalis produce in the condition of the urine, are precisely those which might be expected from the known chemical properties of these bodies, it is rational to infer that they depend on the affinities of these substances."

The absorption of medicines forms the subject of a highly interesting chapter, but as it is rather speculative than practical, we shall make no extracts from it, nor shall we stop to

notice the chapters on the operation of medicines by nervous agency, and the circumstances which modify the effects of medicines, in which will be found a clear analysis of all that is known on these subjects. We must also pass, without comment, his remarks on pharmacological classification. He treats medicines in the order of their "natural-historical relations," dividing them into two groups, *the inorganized and the organized*, the latter being further divided into two sub-kingdoms, *the vegetable and the animal.*

Oxygen stands at the head of the first class. Soon after the discovery of this gas the most exaggerated notions prevailed as to its remedial powers. Our author supposes it may be useful in cases of asphyxia arising from the inhalation of noxious vapors. An instance of the resuscitation of a dog from drowning by inflating the lungs with oxygen, is recorded by Dr. Muse, in the American Journal of Science and Arts, vol. xvi., p. 250. In the same work, (vol. i., p. 95,) other interesting cases are detailed. On the whole, however, Pereira believes oxygen to be almost useless as a remedy. Of chlorine he has a better opinion. It is used advantageously as a wash in skin diseases, as a gargle in putrid sore throat; as a local bath in liver diseases, and as an application to ulcers attended with a fœtid discharge. Inhaled in chronic pulmonary diseases it is, according to his experience, essentially serviceable in ulceration of the lungs, although useless in tubercular phthisis for which it has been prescribed.

The article on *Iodine* is one which will be read by the practitioner with great satisfaction. This remedy is shown by numerous references to have effected striking cures in bronchocele, scrofula, chronic induration and enlargement of the liver, spleen, uterus, and prostate, parotid and lymphatic glands, gonorrhœa, leucorrhœa, the venereal disease, and many of the affections of the skin. In erysipelas, Pereira has found it highly beneficial. In checking or controlling the ulcerative process, Mr. Key proved it to be one of the most powerful remedies we possess, the most active phagedænic ulcers putting on a healthy granulating appearance under its

influence. In phlegmonous inflammation, sloughing of the cellular membrane, inflammation of the absorbents, gout, carbuncle, whitlow, lacerated, contused, and punctured wounds, and burns, and scalds, authority is cited for its remedial powers. "Its topical uses are, therefore, nearly as extensive as those of nitrate of silver. Moreover, it is used in the same classes of cases, and with the same views." Its uses are well summed up by our author in the following paragraph:

"As a remedial agent iodine is principally valuable for its resolvent influence in chronic visceral and glandular enlargements, indurations, thickening of membranes (as of the periosteum), and in tumors. In comparing its therapeutical power with that of mercury, we observe in the first place that it is not adapted for febrile and acute inflammatory complaints, in several of which mercury proves a most valuable agent. Indeed the existence of inflammatory fever is a contra-indication for the employment of iodine. Secondly, iodine is especially adapted for scrofulous,—mercury for syphilitic, maladies; and it is well known that in the former class of diseases mercurials are for the most part injurious. Thirdly, the influence of iodine over the secreting organs is much less constant and powerful than that of mercury;—so that in retention or suppression of the secretions, mercury is for the most part greatly superior to iodine. Fourthly, iodine evinces a specific influence over the diseases of certain organs (*e. g.* the thyroid body), which mercury does not. These are some only of the peculiarities which distinguish the therapeutical action of iodine from that of mercury."

Under the head of *Water*, he gives the following account of the *Methodus Hydriatica*, or famous water cure, for the application of which he states thirteen or fourteen establishments have been formed in Germany within the last few years:

"The following is a sketch of the regimen usually adopted at these establishments:

"At four, or half past four in the morning, perspiration is begun to be produced, which is done by wrapping the patients, like babies, in swaddling clothes, or like mummies, in large and thick blankets. Perspiration usually begins in an hour, and is kept up by making the patients drink several glasses of cold water every half hour. In many cases, when the per-

spiration is at its height, pieces of cloth dipped in cold water, and previously well wrung, are dexterously introduced under the blankets, and applied to the most diseased parts; these parts, as well as the cloths, grow hot, the perspiration soon begins afresh, and causes a sensation of burning in the part.

"At the end of three hours the blankets and bed are soaked with perspiration; the patients are then conducted into a neighboring room, or to another story, where they take their cold baths; and in doing this they often pass through draughts of air without being inconvenienced. Before plunging into the cold bath, they wash their head and chest; and after staying in it two or three minutes, the patients take a few cups of milk with a little bread, and then walk out upon the mountains which border on the establishment, and drink cold water at the numerous springs which they meet upon their route. About nine or ten o'clock they take the douche, or else walk to the cascades which are in the forests or mountains, and expose themselves to the fall of the water that comes down from a height, and strikes the body with great force. Immediately after dressing, they again drink several glasses of water, and then walk in the open air. (*London Medical Gazette*, for October 12, 1839, p. 111).

"This mode of treatment is recommended for old and young, males and females, and is followed both in summer and winter. It is regarded as a kind of universal remedy or panacea. Thus Oertel (*Die allerneuesten Wasserkuren*, 18 Hefte, Nürnberg, 1829–37), says it is good for affections of the eyes, ears, and teeth, for insanity, epilepsy, hydrophobia, erysipelas, quinsy, bronchial phthisis, inflammation of the brain, chest, or abdomen, faintings, diseases of the liver and spleen, gout, stomach complaints, acute eruptions, hemorrhages, alvine obstructions, &c!"

The most ample information on all the various classes and remedial uses of water is afforded in the section on that subject, but we shall make but one more extract from this part of the work, which relates to a somewhat novel application of water—it is as follows:

"What is called *Water-dressing* may be regarded as a modified and improved form of poultice. It consists in the application of two or three layers of soft lint dipped in water and applied to inflamed parts, wounds, and ulcers;—the whole being covered with oiled silk or India rubber, which should project beyond the margin of the lint, to retain the moisture and prevent

evaporation. Dr. Macartney (*Treatise on Inflammation*, p. 180 London, 1838), considers it to operate differently to a poultice: unlike the latter, he says, it prevents or diminishes the secretion of pus, checks the formation of exuberant granulations, and removes all pain: moreover, the water is not apt to become sour, like a poultice, and does not injure the sound part."

Hydrochloric acid in dyspepsia. "Two facts," says Pereira, "give a remarkable interest to the employment of this acid in dyspepsia—namely, that it is a constituent of the gastric juice; and, secondly, that when mingled with mucus it has the power of dissolving various articles of food." The fact of its beneficial action in some cases of indigestion is as well established, as that of its presence in the healthy stomach, or of its agency in the process of chymification. It is esteemed a good remedy against the phosphatic deposites in urine, and the generation of intestinal worms.

Of *Ammonia*, he says:

"If we compare the effects of ammonia with those of other stimulants, as camphor, wine and opium, we observe, in the first place, that the influence of ammonia is principally manifested in the ganglionic and true spinal systems,—while the other stimulants, above mentioned, affect the cerebral system. Thus the effects of ammonia are usually exhibited on the circulation, respiration, secretion, and spasmodic actions: but camphor, wine, and opium, though they also affect these functions, yet they principally affect the intellectual functions. Secondly, the effects of ammonia are more transient than those of the other agents just referred to. Thirdly, the vascular excitement caused by wine and opium is attended with diminished mucous secretion, and is allied more to an ordinary febrile attack."

The caution suggested as to its continued employment in dyspeptic complaints is judicious. Most practitioners, probably, have seen individuals laboring under dyspepsia injured by the long-continued use of alkalis.

"It is to be remembered," he remarks, "that the healthy secretions of the stomach are of an acid nature, and that the continued use of ammonia or any other alkali, must ultimately be attended with injurious results, more especially to the

digestive functions. While, therefore, the occasional employment of alkalis may be serviceable, their constant or long-continued use must ultimately prove deleterious."

Employed as a vesicatory, our author claims for it two advantages over cantharides—a more speedy operation, and non-affection of the urinary organs. For this purpose the strongest aqua ammoniæ is used. In cases of bites of venomous reptiles and rabid animals, and stings of insects, it is a popular remedy. The relief afforded in the sting of the bee is instantaneous.

In connexion with the natural history of *carbonic acid*, the following curious account of the *Valley of Poison*, in Java, a gigantic *Grotto del Cane*, is given:

"It is a cavity of an oval form, about three-quarters of a mile in circumference, and from thirty to thirty-five feet deep; filled to the height of about eighteen feet with carbonic acid gas. The bottom of it is covered with the skeletons of men and various other animals, who have fallen victims to its destructive operation. If a traveller should be so unfortunate as to enter it, he cannot be sensible of his danger until too late to return. Mr. Loudon thrust a dog in: he fell in fourteen seconds. A fowl thrown in appeared to be dead before it reached the ground."

Creasote is an article which, although in use for a number of years past, may be classed among the *new remedies.*

"As an internal remedy," says our author, "creasote has been principally celebrated, in this country, as a remedy possessing extraordinary powers of arresting vomiting. It has, however, been greatly overrated. It is decidedly injurious in inflammatory conditions and structural disease of the stomach, and frequently fails in allaying the sickness dependent on organic diseases, as of the heart and kidneys. It is most successful in hysterical cases, and sometimes succeeds in pregnancy.

In gastrodynia or flatulence it occasionally succeeds, but is admissible in those cases only in which local stimulants are usually found beneficial. Where both creasote and hydrocyanic acid have been separately tried without success, Dr. Elliotson advises their union."

Its use in tooth-ache is familiar in this country, and exter-

nally it is further applied with benefit to foul and indolent ulcers, and in hemorrhages it is a good deal employed as a styptic. Creasote water is recommended in uterine hemorrhage, introduced into the vagina by means of pledgets of lint soaked in it, and as an application to bleeding wounds and leech-bites. Hemorrhage from the umbilical cord in infants is one of the cases in which creasote is an efficient remedy. We quote from our author other remedial uses of which it is susceptible:

"It has been employed to check caries, to restrain excessive suppuration, and to repress fungous granulations in burns and scalds; to act as a counter-irritant in chronic ophthalmia, in which disease it is sometimes dropped into the eye on the same principle that nitrate of silver and other local stimulants are used; and to remove condylomatous and other excrescences. The inhalation of creasote vapor is occasionally useful in relieving excessive bronchial secretions. Dr. Elliotson cured two cases of chronic glanders in the human subject by injecting an aqueous solution of creasote up the affected nostril."

Pereira cites cases of poisoning by creasote, but the symptoms usually yield readily to appropriate remedies. Mr. O., of this city, 61 years of age, and of infirm health, took a tea-spoonful of the article, which had been got a few days previously from an apothecary to be applied for toothache, on the 11th instant, mistaking it for a mixture of balsam copaivæ and spirits of nitre, which he was using for an irritable bladder. His wife, so soon as the error was discovered, gave him a table-spoonful of melted hog's lard. In a few minutes he took an emetic of ipecac. and tart. antimon., which operated freely. The only symptoms of which he complained were a burning in the stomach and a pain of the head. He used diluent drinks, and gentle purgatives, and was relieved from all the effects of the creasote on the third day, and at the same time found himself free from the irritability of the bladder, for which he had been using medicine. Whether the creasote had any agency in the cure of this affection is not clear.

Under the head of Sulphur, as a remedy in scabies, we find the following remark, from which it will be seen that the ques-

tion as to the origin of this annoying disease in the irritation of the *itch-insect*, is not yet settled.

"But before adopting this explanation of the *modus medendi* of sulphur, it is to be proved that the animal is the *cause* of the disease; for, at present, it has not been satisfactorily shown whether it be the cause, effect, or mere accompaniment of itch. Rayer observes, that it is indubitable that the number of these insects bears no proportion to that of the vesicles. 'It is, farther,' he adds, 'rare to discover these insects on the abdomen and on groins, where the eruption of scabies is nevertheless very common and very apparent; moreover, scabies is known to continue when no more acari are to be discovered.'"

Iodide of Potassium is a remedy of which a very extensive use is now made by the practitioners of this country, as well as of Europe; it is therefore of importance that the mode of testing its purity should be generally understood. Our author says,

"Iodide of potassium is often largely adulterated with *carbonate of potash*. In 1829 I analyzed a sample, which contained 77 per cent. of the latter salt. In one specimen Dr. Christison procured 74.5 per cent. of carbonate of potash, 16 of water, and only 9.5 of iodide of potassium. The impure salt may be distinguished by its wanting any regular crystalline form; by adding a few particles of it to lime-water, a milky fluid is obtained, whereas the liquid remains transparent if the iodide be pure; by its destroying the color of the tincture of iodine, whereas the pure salt does not affect it; and lastly, by alcohol, which dissolves iodide of potassium, but not carbonate of potash."

"The following are the characters of pure iodide of potassium according to the *London College:*

"Totally soluble in water and in alcohol. It alters the color of turmeric either not at all or very slightly. It does not alter the color of litmus. Subjected to heat it loses no weight. Sulphuric acid and starch added together it becomes blue. Ten grains of this salt are sufficient to decompose 10.24 grains of nitrite of silver: what is precipitated is partly dissolved by nitric acid, and partly altered in appearance; which is not the case when ammonia is added."

To many of our readers the subjoined extract will probably be interesting—on the uses of hydriodate of potash:

"Having so fully detailed the uses of iodine, it is unnecessary to notice at any length those of iodide of potassium, since they are for the most part identical. Thus it has been employed in bronchocele, scrofula, in chronic diseases accompanied with induration and enlargement of various organs, in leucorrhœa, secondary syphilis, periostitis, articular rheumatism, dropsies, &c. As a remedy for the hard periosteal node brought on by syphilis, it was first employed by Dr. Williams, who obtained with it uniform success. At the end of from five to ten days its mitigating effects are felt; the pains are relieved, the node begins to subside, and in the majority of cases disappears altogether. In these cases, Dr. Clendinning has also borne testimony to its efficacy. In the tubercular forms of venereal eruptions, Dr. Williams found it beneficial. In Dr. Wallace's lectures are some valuable observations on the use of iodide of potassium in venereal diseases. In chronic rheumatism accompanied with alteration in the condition of the textures of the joint, it is, in some cases, remarkably successful. As an ingredient for baths, Lugol found the iodide would not answer alone, but that it was useful as a solvent means for iodine."

From the following it would appear that the *Herculean Calomel-practice*, as it has been styled, is not peculiar to our country, nor can the facts given in the quotation be regarded as very unfavorable to that practice in the disease specified:

"The largest quantity of calomel given as a medicinal agent, at one dose, is, I believe, three drachms; 'and it was followed,' says Dr Christison, from whom I quote the case, which occurred in America, 'by only one copious evacuation, and that not till after the use of an injection.' I have now before me reports of eighteen cases of spasmodic cholera, admitted in the year 1832 into the Cholera Hospital at Bethnal Green, in this metropolis, in which enormous quantities of calomel were employed by the house-surgeon, Mr. Charles Bennett, with very slight physiological effects. When a patient was brought into the hospital, two drachms of calomel were immediately given, and afterwards one drachm every one or two hours, until some effect was produced. In 17 out of 18 cases in which this plan was tried, the vomiting and purging diminished, and the patients recovered. Several of them took from 20 to 30 drachms without the subsequent ptyalism being at all excessive. In one case, 30½ drachms were administered within forty-eight hours; moderate ptyalism took place, and recovery. In the unsuccessful case which I have alluded to, 53 drachms of cal-

omel were administered within forty-two hours, without the least sensible effect."

The chapter on *Iron and its compounds* contains much valuable matter. Of iron, in its relation to that state of the system denominated *anæmia*, in which both the quantity and quality of the blood appear defective, the following remarks possess practical interest—they refer to *chlorosis:*

"If in this condition of system we administer iron, the appetite increases, digestion is promoted, the pulse becomes fuller and stronger, the skin assumes its natural tint, the lips and cheeks become more florid, the temperature of the body is increased, the œdema disappears, and the muscular strength is greatly augmented. The alvine evacuations assume a black color, as they always do under the use of the ferruginous preparations. After continuing the use of iron for a few weeks, we frequently find excitement of the vascular system (particularly the brain); thus we have throbbing of the cerebral vessels, and sometimes pain in the head, a febrile condition of system, with a tendency to hemorrhage. Mr. Carmichael considers the *sanguine* temperament (marked by a high complexion, celerity of thought, remarkable irritability of fibre, and a quick pulse) as depending on an excess of iron in the system; whereas the *leucophlegmatic*, or *relaxed*, temperament (characterized by a pale bloated countenance, dull eyes, mind heavy and slow in receiving and forming ideas, little irritability of fibre, and pulse small and feeble) as depending on a deficiency of iron.

"When by the use of iron the state of the general system improves, the secretions resume their natural condition; and thus at one time we observe this metal promoting the uterine discharge, at another checking it, according as chlorosis or menorrhagia had been previously present; we cannot, therefore, regard the preparations of this metal as having any direct emmenagogue effect, as some have supposed.

"Some refer all the other symptoms of anæmia to the abnormal state of the blood, and ascribe the beneficial influence of iron to the improvement in the quality of this liquid. It is certain that, under the use of the preparations of this metal, the blood frequently acquires a more scarlet color, owing probably to an increase in the number of its coloring particles; and the crassamentum becomes firmer and more solid, and even increased in quantity. This alteration of the physical

and chemical properties of the blood must render it more stimulating, and thus the different organs, receiving a fluid of a more healthy character, resume their normal condition, and perform their functions in a proper manner. Tiedmann and Gmelin have detected it in the serum of the blood of the portal and mesenteric veins of horses and dogs, to whom they administered either the sulphate or chloride. Occasionally, too, iron has been found in the urine. Moreover, Menghini asserts, that the quantity of iron in the blood of dogs may be increased by feeding them on substances mixed with this metal. Furthermore, it is not to be forgotten, that iron exists in no inconsiderable quantity in healthy blood, and is supposed to contribute to its color, and probably to its stimulant properties; so that it is not unlikely any variation in the quantity of this metal would be attended with an alteration in the action of every organ."

The second, and larger volume is devoted to the history of medicines derived from the *organized kingdom.* The details given are so clear and ample, that the practitioner will not often have to seek for further information concerning any of the articles mentioned. As in the description of mineral substanes, all that relates to their natural history, chemical constitution, physiological effects, and remedial uses, is concisely, but so fully related, that it would be difficult to add any thing of value to the descriptions of the author, without going into details of practice inadmissible in an elementary work. Equally difficult, perhaps, would it be to find omitted in these volumes, any single remedial agent of established value. Many of very equivocal claims to any healing virtues are admitted into the catalogue; many are mentioned which are decidedly worthless; and those which the practitioner will probably never employ are introduced by hundreds; but such must be the character of every treatise which assumes to be a complete history of Materia Medica.

The following extract from the article on *Ergot* will afford an idea of the minuteness with which the author details all that is known about a medicinal substance:

"The nature and formation of ergot are subjects on which botanists have been much divided in opinion.

"Some regard ergot as a fungus growing between the glumes of grasses in the place of the ovary. Otto Von Münchausen, Schrank, De Candolle, Fries, Wiggers, and Berkeley, have adopted this opinion, and have described ergot as a fungus under the name of *Spermoedia Clavus.* Fries and Berkeley, however, evidently entertain some doubts respecting its nature; for the first adds to the generic character of Spermoedia, "*Semina graminum morbosa,*" and the second says, "it appears to be only a diseased state of the grain, and has scarcely a sufficient claim to be admitted among fungi as a distinct genus."

"Against this opinion may be urged the circumstance noticed by Tessier, that a part only of the grain may be ergotized. Moreover, the scales of the base of the ergot, the frequent remains of the stigma on its top, and the articulation of it to the receptacle, prove that it is not an independent fungus, but an altered grain.

"Some regard ergot as a diseased condition of the ovary or seed. The arguments adduced against the last opinion are in favor of the present one. Though a considerable number of writers have taken this view of the nature of ergot, there has been great discordance among them as to the causes which produced the disease.

"*Some have supposed that ordinary morbific causes, as moisture combined with warmth, were sufficient to give rise to this diseased condition of the grain.* Tessier and Wildenow appear to have been of this opinion.

"*Some have ascribed the disease to the attack of insects or other animals.* Tillet, Fontana, Read, and Field, supported this view, which, I may add, has subsequently been satisfactorily disproved.

"*Some, dissatisfied with the previously assigned causes of the disease, have been content with declaring ergot to be a disease, but without specifying the circumstances which induce it.* Mr. Bauer, who closely watched the development of ergot during eight years, and has made some beautiful drawings of it in different stages, arrived at this conclusion; as also Phœbus.

"*Others have referred the disease to a parasitic fungus.* This opinion, which must not be confounded with that entertained by De Candolle and others, has been adopted and supported by Léveille, in 1826 by Dutrochet, Smith, and by Quekett."

The remedial applications of this article are stated at much length. We make room for a few quotations:

"Another interesting topic of inquiry is the action of ergot on the gravid uterus of mammals. Chapman says 'it never fails, in a short time, to occasion abortion.' We have the testimony of Percy and Laurent, that a decoction injected into the veins of a cow caused the animal to calve speedily; and in one out of three experiments, Mr. Combes has stated, the ergot caused the abortion of a bitch, Diez found that it caused uterine contractions in dogs, rabbits, and sows. Large doses given to bitches induced an inflammatory condition of the uterus, and destroyed both mother and her young. However, in opposition to these statements, we have the evidence of Chatard, Warner, Villeneuve, and others, who failed in producing abortion with it.

"I am indebted to Mr. Youatt, Veterinary Surgeon to the Zoological Society, and editor of the *Veterinarian*, for the following note respecting the effects of ergot on animals:

"'I have, for the last six or seven years, been in the habit of administering the ergot of rye to quadrupeds in cases of difficult or protracted parturition, in order to stimulate the uterus to renewed or increased action. In the *monogastric*, if I may venture to use the term, I have never known it fail of producing considerable effect, even when the uterus had been previously exhausted by continued and violent efforts. In the *ruminant*, with its compound stomach or stomcahs, I have witnessed many a case of its successful exhibition. I have had recourse to it in the cow, the sheep, and the deer, both foreign and domestic. Parturition has not always been accomplished, from false presentation or other causes, but the uterus has in every case responded—it has been roused to a greater or less degree of renewed reaction. On the other hand, there are cases recorded by veterinary practitioners, in which it has been given in very large quantities without producing the slightest effect. I have always attributed this to a certain degree of forgetfulness of the construction of the stomachs of ruminants. If the medicine, as is too often the case, is poured hastily down, and from a large vessel, it breaks through the floor of the œsophagean canal and falls into the rumen, and there it remains perfectly inert. But if it is suffered to trickle down the œsophagean canal, although a portion of it may still enter the rumen, the greater part will flow on through the œsophagean canal and the manyplies into the fourth or villous stomach, and produce the desired effect.'"

"*Effects on the uterine system.* The action of spurred rye on the uterus *when labour has actually commenced*, is usually observed in from ten to twenty minutes after the medicine has

been taken, and is manifested by an increase in the violence, the continuance, and the frequency of the pains, which usually never cease until the child is born; nay they often continue for some minutes after, and promote the speedy separation of the placenta and the firm contraction of the uterus in a globular form. The contractions and pains caused by ergot are distinguished from those of natural labour by their continuance; scarcely any interval can be perceived between them, but a sensation is experienced of one continued forcing effort. If from any mechanical impediment (as distortion) the uterus cannot get rid of its contents, the violence of its contraction may cause its rupture, as in the cases alluded to by Dr. Merriman, Mr. Armstrong, and Mr. Coward.

"Ergot sometimes fails to excite uterine contractions. The causes of failure are for the most part conjectural. The quality of the ergot, peculiarities on the part of the mother, and death of the fœtus, have been assigned as such. The two first will be readily admitted; but why the remedy should be altogether inert "where the fœtus has been for sometime dead, and putrefaction to any extent taken place" cannot be readily explained. Its occasional failure has been urged by Dr. Hamilton as an argument in favor of his notion that ergot acts "in no other way than by influencing the imagination." But on the same ground the sialogogue power of mercury might be denied. Dr. Hamilton's erroneous estimate of the powers of ergot is referrible to a want of experience of its use; for he admits that he has only had two opportunities in practice of making a fair trial of it.

"There is usually much less hemorrhage after delivery, when ergot has been employed, than where it has not been exhibited. The lochial discharges are also said to be less; but this is certainly not constantly the case. Moreover, it has been asserted 'that the menstrual discharge has not recurred after the use of the ergot in certain cases of protracted parturition.' But the inference intended to be conveyed here, viz. that ergot caused the non-recurrence, is not correct; at least, I am acquainted with several cases in which this effect did not follow the employment of spurred rye, and I know of none in which it did.

"Ergot has been charged with causing the death of the child; but the charge has been repelled by some experienced practitioners as being devoid of the least foundation. 'The ergot,' says Dr. Hosack, 'has been called in some of the books, from its effects in hastening labour, the *pulvis ad partum;* as it regards the child, it may with almost equal truth

be denominated the *pulvis ad mortem*, for I believe its operation, when sufficient to expel the child, in cases alone where nature alone is unequal to the task, is to produce so violent a contraction of the womb, and consequent convolution and compression of the uterine vessels, as very much to impede, if not totally to interrupt the circulation between mother and child.' However, Dr. Chapman strongly denies this charge, and tells us that in 200 cases which occurred in the practice of himself and Drs. Dewees and James, the ergot was used without doing harm in any respect; and he adds, 'no one here believes in the alleged deleterious influence of the article on the fœtus.' It is not improbable, however, where the impediment to labour is very great, that the violent action of the uterus may be attended with the result stated by Dr. Hosack. Dr. F. H. Ramsbotham has suggested that the poisonous influence of ergot may be extended from the mother to the fœtus, as in the case of opium. He also states that of 36 cases in which he induced premature labour by puncturing the membranes, 21 children were born alive; while in 26 cases of premature labour induced by ergot only, 12 children only were born alive. This fact strongly favors the notion of the deleterious influence of ergot on the fœtus.

"Given to excite abortion, or premature labour, ergot has sometimes failed to produce the desired effect. Hence many experienced accoucheurs have concluded, that for this medicine to have any effect on the uterus it was necessary that the process of labour should have actually commenced. But while we admit that it sometimes fails, we have abundant evidence to prove that it frequently succeeds; and most practitioners, I think, are now satisfied that, in a large number of cases, it has the power of originating the process of accouchement.

"*To restrian uteterine hemorrhage, whether puerperal or non-puerperal.*—Ergot checks hemorrhage from the womb, principally, if not solely, by exciting contraction of the muscular fibres of this viscus, by which its blood-vessels are compressed and emptied, and their orifices closed. The experience of physicians and surgeons in all parts of the civilized world has fully and incontestibly established the efficacy of ergot as a remedy for uterine hemorrhage. Maisonneuve and Trosseau, have shown that the beneficial influence of ergot is exerted equally in the unimpregnated as in the impregnated state; proving, therefore, that the contrary statement of Prescott and Villeneuve is incorrect. Even in a case of cancer of the uterus they have found it check the sanguineous discharge. In females subject to profuse uterine hemorrhages

after delivery, ergot may be administered as a preventive, just before the birth of the child. Even in placental presentations, a dose or two of ergot may be administered previously to the delivery being undertaken. To restrain excessive discharge of the lochia or catamenia, this remedy is sometimes most beneficial.

"*In hemorrhages generally.*—The power possessed by ergot of exciting uterine contractions, readily explains the efficacy of this agent in restraining sanguineous discharges from the womb; but we can in no way understand how hemorrhage from other organs can be influenced by it. We are not, however, to deny the therapeutic power of a medicine merely because we cannot explain its *modus medendi*, though we are justified in requiring abundant proofs ere we admit it. It must be acknowledged, that a considerable number of cases have been published in proof of the power possessed by ergot of checking hemorrhages from other organs (as the nose, gums, chest, stomach, and rectum) than the uterus. But having found it unsuccessful in my own practice, seeing that in the hands of others it has also failed, and knowing how difficult it is to ascertain the influence of remedies on hemorrhages, I think further evidence is required to prove the anti-hemorrhagic powers of ergot."

We shall not multiply our extracts from this elaborate work, of the value of which we are fully aware that no just estimate can be formed from quotations. It is a production which to be appreciated must be seen and examined. That it will command, in this region, as in all other places where it has found its way, it has won, the approbation of the profession, may safely be predicted, and its extensive circulation will be at once an indication and an assurance of an increasing taste for thorough medical knowledge. Such a work cannot be made current without creating a desire for more enlarged information on all the branches of science connected with medicine—a desire which, to a very great extent, it is capable of gratifying. The American editor has added to it whatever was wanting to make it a complete description of the Materia Medica of the United States, and the publishers have got it up in good style. The illustrations are numerous and satisfactory. The table of contents, prepared, we are told, by the wife of the author, is not the least of the

recommendations of a work embracing so vast a range of subjects. The table is so full that the reader will find every article and every topic of discussion mentioned in its place. We cannot doubt that the publishers will be amply rewarded for their enterprise, in bringing out a work of so much excellence. Y.

ART. VI.—*Practical Manual of the Diseases of the Heart and Great Vessels. A work intended to facilitate and extend the study of these Diseases.* By F. A. ARAN, Interne of the First Class of the Hôtel-Dieu, Laureat of the Hospitals, formerly pupil of the Practical School of Medicine, &c. Translated from the French; by WM. A. HARRIS, M.D. Philadelphia. Ed. Barrington & Geo. D. Haswell. 1843. pp. 296, 12mo.

The aim of this little work is a most praiseworthy one. That class of affections, the study of which it is intended to facilitate and extend, has hitherto been much neglected by the profession. We hope this Manual, comprising, as it does, a summary of what has been published in more elaborate works, will be extensively read, and that the study of it may lead to a more correct appreciation of the character of these diseases. A scepticism has prevailed, but too generally, as to the possibility of recognising and curing the complaints of the heart, and hence has arisen the indifference with which they are regarded by many physicians. This incredulity has been strengthened by the differences of opinion among authors respecting such affections. The author of the volume before us, familiar with the treatises of Senac, Corvisart, Laennec, Bertin, Bouillaud, Gendrin, and Hope, and guided by them in his researches, has brought the observations of these authors to the test of clinical experience. "We have not," he says, "adopted servilely the opinions of any one. We make no pretensions to novelty; but we have compared, and,

as well as we have been able, have verified, for ourselves, the observations of others." We believe we shall be rendering our readers an acceptable service by presenting a condensed account of the matter of the Manual.

The author introduces his subject by the very just remark, that a study of the phenomena and all the conditions appertaining to the healthy state of organs is indispensable, in order to understand the various modifications they undergo in disease. Unless we are acquainted with the phenomena incident to the normal state, it is plain that we cannot judge with any degree of accuracy respecting the nature of morbid changes. The good practical rule, therefore, laid down by writers, ought always to be observed, "of uniformly investigating with care, the condition of each individual organ of importance, in every disease of whatever kind and character." By such a course of procedure practitioners would at once recognize any departure of the heart from its normal action, and acquire, at length, the tact in diagnosis upon which must rest any success in the treatment of cardiac diseases.

The first part of the Manual is devoted to the considera- of the anatomy of the heart, the physiology of its beats and sounds, the pathological physiology of the same, the arterial pulsations in their physiological and pathological state, and the sounds of the arteries in their healthy and morbid state. We shall not attempt any abstract of this portion of the work, but hasten to give an analysis of that part which treats of the *pathology of the heart.* Having presented the local symptoms of these diseases in the first part, he thus details the

"*General Symptoms:*—The diseases of the heart exert a very marked influence over the whole economy; nor is it in a narrow and circumsbribed circle that these morbid reactions are produced; but, on the contrary, how numerous are the sympathies which the central organ of the circulation creates in the rest of the organism! It is in consequence of their multiplicity, and the difficulty of referring them to one perfectly settled cause, that we have decided to study the general symptoms in a purely analytical order:

1st. *Congestions.*—The embarrassment of the circulation is marked in the skin, and principally in the face; sometimes

by a violet and livid discoloration, general or local; sometimes by a livid paleness, which has a frightful appearance. It is not an uncommon event, to see the face of a blue color in its whole extent; but it is much more rare to see all the body present this color, except in certain congenital diseases of the heart. The engorgement of the venous system is one of the extraordinary phenomena pertaining to diseases of this organ; but in some circumstances, true beats, of more or less regularity, are observed in the veins near the heart (as the internal and external jugular). As this phenomenon constitutes a very valuable sign in cardiac diseases, it is important to distinguish the swelling of the veins from congestion, from the venous beats, or the swelling from regurgitation of these vessels. It is for the purpose of establishing this distinction, that M. Gendrin proposed a very ingenious process, which consists in making compression on the part of the jugular vein, most distant from the heart. If, in this case, the vessel remains empty and collapsed, the swelling of the veins does not depend on the regurgitation of the blood of the heart into the veins, but from an insufficient depletion of these vessels; if on the contrary, after having forced the blood from below upwards into the external jugular vein, and placed a finger on the most inferior part of this vessel, the blood is seen to reascend in the vein, and there produce pulsations, it may be affirmed, that the swelling of the veins depends on the reflux of the blood which distends the heart. The swelling of the veins with beats does not belong, therefore, to congestion, but rather to regurgitation. These beats, appreciable only to the sight, are perceived especially in the superficial veins of the neck; and sometimes in the internal jugular. They may be simple or double: when *simple*, they are always synchronous with the systole of the heart; when *double*, they are composed of an undulatory tremor which precedes the systole, and by a true beat, synchronous with the systole of the ventricles. The simple pulsations of the veins (*systolic*) may depend, either on a deficiency of the tricuspid valve, or on a considerable dilatation, with hypertrophy of the right ventricle; in this last case, the phenomenon is due to a regurgitation of the blood placed between two segments of the now thin and badly supported tricuspid valve, the motion of which is transmitted to the blood of the auricle and superior veins, (Hope). The double pulsations depend, first, on hypertrophy of the right auricle; second, on deficiency of the tricuspid valve, or on dilatation with hypertrophy of the right ventricle. These double beats

are at their maximum where there is contraction with deficiency of the right auriculo-ventricular orifice. In the mucous membranes, the congestion is not less evident; and hence we see it supervening in the intestinal tube, and characterized by a punctuated redness, or by flakes of mucus in the stomach and intestines. This congestion, which is always dangerous, is announced by anorexia, eructations, severe pains extending through the abdomen, and later by serous diarrhœa, sometimes very abundant, and which is often accompanied by very prominent hemorrhoidal tumors.

"The functional vascular apparatus of the lungs (which is so immediately connected with the action of the heart) is in some measure the first to suffer from alteration of this organ. Hence, it is in the lungs that the first general phenomena make their appearance when they are dependent on embarrassments of the venous circulation; the first of these phenomena is the œdema of the lungs, which is indicated by a dry cough, considerable dyspnœa, evident diminution of resonance at the base of the lung behind, and the presence at this point of a crepitant moist râle with distinct bubbles; and, anatomically, by an increase in the consistence of the pulmonary parenchyma, which is like paste, its pale and greyish color, and in its general infiltration with a yellowish, frothy serosity. It is not uncommon to find, at a more advanced period in the diseases of the heart, the lung tumefied, with an increase of density in certain points, and infiltrated with a yellowish-red serosity, which flows with difficulty. These cases of œdema may be easily confounded with pneumonia; for independently of considerable dulness, there is found either a moist crepitant râle, or a true tubular sound. It is true, that the absence of the rusty sputa, of the symptomatic fever, and of the pain in the chest, prevent us from confounding these two diseases; but these cases are not less troublesome. The pulmonary œdema may manifest itself, and disappear many times; it often alternates with a phenomenon which we shall soon study under the name of colliquative diuresis, and has its maximum of intensity in the cardiac diseases, in which the circulation is found most embarrassed, as in the case of deficiency of the mitral and tricuspid valves. The pulmonary œdema unformily precedes the hydropic effusions which take place in the serous cavities.

"Pulmonary œdema precedes also that state of sanguineous engorgement, in which this organ takes on a reddish-brown color, loses its elasticity, and furnishes after incision a considerable quantity of blood of a violet-brown color. This state of congestion of the lung, which is generally accompanied by

hemorrhage, is characterized by extreme dyspnœa, with partial dulness, and by the moist crepitant râle, as in œdema.

"The liver, which is the centre of all the venous system of the vena porta, and which empties itself by large outlets into the vena cava inferior, suffers more than any other organ from obstacles which oppose the return of venous blood. This congestion of the hepatic organ is made known by considerable tumefaction. On one side, it extends inferiorly below the border of the false ribs on the right, and it descends in front to the level of the umbilicus; it forms a shining tumor, and most often yielding to pressure, which preserves entirely the form of the liver. In another direction, this organ ascends by its convex face, which is rendered evident by auscultation and percussion. The swelling of the liver adds often to the dyspnœa, and it announces almost always incipient ascites, especially when the inferior extremities are in a state of œdema, and there is meteorism of the abdomen. It is never complicated with jaundice, unless the liver be the seat of a phlegmasia: in severe cases, it is accompanied by meteorism, vomitings, diarrhœa, and swelling of the hemorrhoidal veins, with or without hemorrhage. These congestions of the liver are evidently caused by those diseases in which the return of the venous blood is most impeded; thus, they are most often seen in diseases of the auriculo-ventricular orifices, and especially of the left. They are produced more rapidly in proportion as the obstacle is situated near the venous circulation; if it is in the right ventricle, the congestion will happen much sooner than if it was in the left ventricle. Hepatic congestions are most often accompanied with congestion of the lung, since it is through the medium of this organ that the venous circulation becomes arrested. We have already spoken of the congestions which take place in the intestines, and which succeed those of the liver. It is easy to comprehend how this congestion may take place in the spleen, and finally, by degrees, reach, not only all the organs which contribute to form the branches of the vena porta, but also all those which pour their blood into the inferior vena cava. The congestion of these last organs is indicated most commonly by a particular circumstance, noticed for the first time by M. Gendrin, and which consists in the habitual excretion of a quantity of urine, much more abundant than the amount of liquids taken in. It is generally during the night that this excretion is principally abundant; the urine is white, watery, and almost always without sediment; it contains no albumen; its quantity varies with the stage of the disease; but augments as the lat-

ter advances. The *colliquative diuresis* is not always constant; when it does exist, the dyspnœa is generally diminished. The diuresis almost always precedes the anasarca, and is caused by obstacles which are situated at the orifices, and particularly at the auriculo-ventricular ones. It is, however, observed, in some cachexies, in chlorosis, for example.

"The brain is not protected from the congestions which take place in the other organs; the connection which exists between the cerebral affections and the diseases of the central organ of the circulation has always been noticed. Congestion under these circumstances is announced by the following symptoms: dull and continued headache, weight in the head, inclination to sleep, injection of the capillaries of the face and conjunctiva; at a later period succeeds a comatose state, and the symptoms of a paralysis more or less extensive.

"2. *Hemorrhages.*—There is only one step from congestion to hemorrhage. Thus, we see patients who, after having presented, for a long time, symptoms indicative of congestion of the brain, are suddenly attacked with all the symptoms which point out a cerebral hemorrhage, viz: sudden loss of consciousness, circumscribed paralysis, &c. These cerebral hemorrhages and the encephalic sanguineous congestion which precedes them, have been generally considered as the immediate effect of the excessive impulse given to the column of arterial blood by the left ventricle of the hypertrophied heart. We shall examine, under the article *Hypertrophy*, whether this opinion be well founded.

"It is not only in the brain, but much oftener in the lungs, that hemorrhages are observed; as we can readily understand by a knowledge of the situation of the lung. This organ, placed between the right and left side of the heart, receives continually, through the pulmonary artery, the blood which it is to transmit to the left auricle by means of the pulmonary veins; but if any material obstacle exists in one of the orifices of the left ventricle, and especially in the left auriculo-ventricular orifice, the blood which at first stagnates in the left auricle, accumulates gradually in the pulmonary veins which are distended, then in the delicate vessels of the lung. These last either allow the blood to transude on their surface (*hemorrhage by exhalation*), or else are torn to give passage to this liquid (*pulmonary apoplexy*). Of these two forms of hemorrhage, the most common is certainly the pulmonary apoplexy (*pneumo-hemorrhage*). This affection, characterised anatomically by the sanguineous infiltration of a greater or less number of lobules, and by their conversion into black, homogenous tissue, is commonally announced by intense dys-

pnœa, more or less dull pain in the side, palpitations, expectoration, of a brown and even black blood, dulness on percussion, and by the moist crepitant râle more or less mixed with the tubular sound. In general, pneumo-hemorrhages only supervene in the first periods of the disease of the heart, when the organism is not much deteriorated, that is, in persons who have not had œdema, and who still present all the appearances of good health. At a later period, when the contractility of the heart is enfeebled, and the pulmonary vessels become by degrees habituated to this sanguineous congestion, these hemorrhages become rare.

"Hemorrhages of the liver, and of the gastro-intestinal tube, ordinarily take place at a more advanced period in the diseases of the heart. These, when they are very abundant, often bring temporary relief for a certain length of time; finally, in the last stages of the diseases of the heart, there are sometimes observed sanguineous effusions, in the tissue of the eyelids, for example, and in the sub-cutaneous cellular tissue of the face. These sanguineous congestions may be increased in an alarming manner, and may even take place in the heart itself (Gendrin).

"*Serous Infiltration.*—The serous infiltrations are seen sooner or later in almost all severe diseases of the heart.' They first take place in the cellular tissue (*œdema*, *anasarca*), and later in the serous cavities (*dropsy*); commencing always in parts of circumscribed bodies, especially in the inferior extremities. At first the œdema only supervenes at the end of the day, and disappears on lying down; it induces no change of color in the skin, and only a feeling of oppression; it preserves a long time the impression of the finger; but in proportion as the infiltration progresses and advances to the trunk, it no longer disappears completely on lying down. The œdema next occupies the cellular tissue of the parietes of the thoracic and abdominal cavities; and it may even become general. When it shows itself in the superior extremities, it is especially the right which is the most affected. We have for a long time sought for the reason of this. May it not be owing to the habit which patients have of lying on the right side, and consequently rendering it lower?

"To this general anasarca is added very often considerable dyspnœa, proceeding from the pulmonary œdema, which is a constant attendant, as well as from the infiltration of the thoracic parietes, which concurs to embarrass considerably the movement of the muscles. The anasarca is always accompanied by a considerable deterioration of the functions. The organs which only receive very poor blood fall into a state of

inertia; the muscles become atrophied; the skin and all the mucous membranes become dry; the renal secretion diminishes; so that, when we have succeeded in causing the anasarca to disappear, we always find the strength of the patient so enfeebled, and the general complications so aggravated, that there is little hope of re-establishing the healthy organism. It is only when the anasarca has increased to a very great extent, that infiltrations take place in the serous cavities; they are at first effused into the peritoneal cavity, then into that of the pleura and pericardium, and sometimes even into that of the arachnoid.

"These serous effusions add to the gravity of the primary disease: the ascites renders the respiration more difficult, increases the embarrassment of the circulation in the abdominal vessels, induces vomiting and constipation; the hydrothorax diminishes the extent of the pulmonary surface, contracts or diminishes the space for hematosis, and increases considerably the dyspnœa; the effusion into the pericardium augments the irregularity in the movements of the heart; and the serous effusion into the arachnoid, which throws the patient in a state of profound coma, often puts an end to his agonising sufferings.

"4. *Gangrene of the Extremities.*—Gangrene of the extremities is sometimes seen in individuals of an advanced age, as a complication of the diseases of the heart. It only happens at a very advanced stage of the disease, when the whole organism is much deteriorated; that is, when the anasarca is constantly reproduced, and when the patient is much emaciated and complexion deteriorated; it most often happens after scarifications of the inferior extremities; the presence of œdema is always one of the principal causes. Sphacelus commences ordinarily in the skin of the toes or fingers, which are covered with livid spots, or in the lips of the scarifications, which become black; at the same time the limb is the seat of acute pains, with a feeling of coldness; the spots increase in extent; phlyctenæ are formed, and the sensibility is extinguished in the points where the epidermis is raised. These spots rapidly ascend to the trunk in increased numbers, and below them the skin is always mortified. In proportion as the disease extends superiorly, the pulsations of the artery in the limb affected cease to be perceived, and the arterial tube is converted into a cord filled with coagulated blood. The veins of the limb become nearly effaced, and are only recognized by black lines which furrow the surface of the limb; at the same time, the beats of the heart grow feebler; then fol-

lows adynamia, wild delirium, eschars on the sacrum and great trochanters; finally, the patient dies comatose seven or eight days after the invasion of the sphacelus. Such is the gangrene which is a consequence of diseases of the heart. Gangrene of the extremities may also be caused by diseases of the arterial tubes; it is this species that the surgeons have described under the name of *senile gangrene;* but this is not the place to speak of it.

"5. *Dyspnœa.*—The serous and sanguineous congestions which almost always have their seat in the lungs, and the difficulty of hematosis, which is a consequence of them, produce always some difficulty in the respiratory functions. The patients do not at first take notice of their dyspnœa; afterwards they find that they are much out of breath when they take exercise. It is not rare to find, in the working classes, and in children, individuals who present the physical signs of severe diseases of the heart, and yet they say that they have never felt dyspnœa. The reason is, that these individuals pay little attention to their sensations, and that, as the dyspnœa comes on gradually, they become accustomed to it, and never think that they are afflicted with any disease.

"The dyspnœa increases continually, and often imposes on the patients the necessity of preserving the most absolute repose. This affection is not always felt to the same degree. When at rest, the patients suffer little or none; but deviations in diet, moral emotions, and corporeal labor increase its intensity. It has not always the same causes: sometimes it is due to the sanguineous or serous congestion of the bronchial mucous membrane; sometimes to a chronic bronchitis, or to a very marked pulmonary emphysema. But the fixed cause of this dyspnœa is always found in the insufficient oxygenation of the blood; either because the air only penetrates the aërial vesicles and bronchial ramifications in a very small quantity; or because the permeable state of the mucous membranes prevents the blood from being sufficiently exposed to the action of the air; or, finally, because the blood does not flow in sufficient quantity into the pulmonary vessels.

"Dyspnœa is generally one of the first signs of diseases of the heart; sometimes it is habitual, and sometimes it is paroxysmal. Most commonly habitual, it also presents exacerbations. It is this last which constitutes one of the great varieties of asthma, that is called *cardiac asthma.*

"*Cardiac asthma* presents various characters; sometimes it is *humid*, for example, when the lungs are in a permanent state of engorgement, as happens in the case of contraction of the

left auriculo-ventricular orifice; it is *dry* when the engorgement of the lung is only temporary, as happens in simple hypertrophy; finally, it may be *convulsive.*

Sometimes the attacks of asthma come on suddenly; sometimes (in severe cases, for example), they are announced by some precursory troubles, as feeling of weight in the epigastric region, distension of the abdomen, pain, oppression, constriction in the forehead with some beating, and an indefinable sensation of oppression and anxiety in the præcordial region. At other times, the invalid is uneasy, irritable, morose, and it may be apathetic or melancholy. Whatever was his previous state, the attack begins in the following manner: the patient, if he is lying down, wakes up suddenly with violent palpitations, with an agonizing sensation of oppression in the præcordial region, and a considerable tightness in the chest, as if it was forced in a vice: he raises himself upon his seat and demands instantly air: the respiration is noisy, and is accompanied with violent efforts of all the respiratory muscles; the inspirations are long, the expirations short and imperfect; the whole external surface feels cold; the face is pale or livid; the pulse frequent, small, feeble, often irregular and intermittent. In proportion as the attack loses its intensity, the oppression and tightness of the chest diminish, the respiration becomes less frequent, less loud, and less labored; the pulse slower, fuller, and more regular; the patient retains only a slight constriction of the chest, and a slightly noisy respiration. Finally, the attack terminates by a very abundant expectoration of a viscid liquid, which is transparent, or by a considerable diaphoresis; sometimes by a copious evacuation of pale and clear urine. As long as these evacuations, which constitute the crisis of the attack of cardiac asthma, and which announce the disengorgement of the pulmonary system, do not take place, it is to be feared that the attack will soon reappear. In general, the attacks of asthma are more complete if the obstacle to the circulation is great, and the pulmonary congestion continues long. Thus, in the case of disease of the valves with considerable dilatation, the attacks often last for five or six hours. In proportion as the organic disease of the heart progresses, the attacks of asthma, which at first only returned at distant intervals, come nearer to each other; the respiration, always short, is now quick and laborious from the least exercise, or from the least moral emotion; finally, in the last period of this disease, the cardiac asthma is persistent. Unable to remain in the horizontal position, the patients remain for weeks and whole months in almost a vertical posi-

tion, and sustained by pillows, their body bent forward, their elbows placed on their knees, their eyes widely open and staring; their eyebrows raised, and their nostrils dilated. Their features are dark and haggard, and their head is drawn backwards at each inspiration; they cast around them a mingled look of horror and entreaty; sometimes praying with an almost inaudable voice, and with plaintive cries, or in feeling and broken accents, for the assistance which has been freely administered to them in vain: sometimes accusing the impotency of medicine; sometimes, finally, in the agony of despair, letting their head fall on their chest, and murmuring a fervent request that death would put an end to their sufferings. For some hours, sometimes only for some minutes, they experience a delightful interval of calmness. They flatter themselves with the hope that their distress is passed, and their cure is at hand; but this hope soon vanishes; the short sleep which they enjoy is interrupted by the horrors of an unfortunate dream; they raise themselves up, uttering piteous cries. Finally, the respiratory muscles, overcome by the efforts that the instinct of self-preservation has imposed upon them for so long a time, participate in the general exhaustion, and refuse to fulfil their functions. Then the patients expire in the midst of a last inspiration, (which is most rarely the case), or fall exhausted on their bed; the respiration in this case is short, raucous, almost absolutely diaphragmatic; the skin becomes violet, the pulse almost imperceptible, and the patients fall into a state of comatose asphyxia. This comatose state may last some hours; we have seen it last for three days.

"6. *Nervous Disorders.*—We include under this head all those disorders of innervation which have an influence either over the general or special sensibility of certain organs and tissues. Amongst these disorders, we notice especially acute pains which the patient experiences in the epigastric region when he partakes of the indulgences of the table; and which are accompanied by eructation in all cases. We must also notice those pains which radiate from the epigastric region towards the left shoulder, and which are accompanied by more or less painful numbness in the superior extremity of the same side (*angina pectoris.*) These pains may not at first descend below the deltoid muscle, but they soon extend along the internal part of the arm to the elbow, sometimes even to the extremities of the fingers, following the course of the cubital nerve. Their duration is almost always short: when they are prolonged, they give rise to a suffocating dyspnœa, to violent palpitations, to syncope, and even to convulsions.

Generally the attack is induced by all the causes which excite the action of the heart, as walking, running, the pleasures of the table; it seldom lasts more than ten minutes, and still more rarely continues for half an hour or an hour: in this last case the danger is imminent. *Angina pectoris* is only present in very advanced and severe disease of the heart. It is at its maximum in cases where there are osseous or cartilaginous and steatomatous degenerations of the heart and large vessels, or where there is hypertrophy and considerable dilatation of the organ with or without softening of its parietes."

We copy next his remarks on the *mode of investigation in the diseases of the heart:*

"One of the causes which has most retarded the progress of the pathology of the heart, is certainly the want of method in the investigation of the morbid changes of this organ. The diseases of the heart are composed of a number of phenomena, all having a particular signification. It is necessary, therefore, to proceed to their examination in a methodical manner, in order that none of them may be omitted. This is the mode which appears to us most proper; it is similar to that which M. Gendrin has followed.

"To examine properly patients affected with diseases of the heart, it is necessary to place them in an almost horizontal position; to take away all clothing that may either embarrass the motions of the chest, or produce artificial sounds by friction. It is preferable to examine them in the morning, after sleep. It is necessary to uncover all the præcordial region in men, and place only very fine linen on the anterior surface of the chest in women.

"We must first find out, by the sight and touch, that there is no anomalous tumor seated in the præcordial region, and that the thoracic cavity presents no kind of deformity; then applying the hand over the præcordial region, we must try to find exactly the seat of the apex of the heart, and its distance from the axis of the sternum. At the same time we must judge, by the hand applied over the heart, of the force, the extent, the number, the duration, and the regularity of the beats or impulse of this organ. A knowledge of the position of the apex of the heart is one of the most important elements in diagnosis, since it permits us to determine the length of the organ, by measuring the distance which separates this point of the thorax from the intercostal space where we have said that the base of the heart is invariably fixed.

"We then make percussion over the præcordial region, by striking lightly, with one or two fingers of the right hand on one of the left hand, applied immediately over the intercostal spaces.

"We thus estimate the extent and degree of dulness, and at the same time also the position of the anterior border of the lungs, the volume of the heart, and that of the pericardium.

"We pass, next, to the auscultation of the præcordial region. In this examination, the ear is most often made use of; although when we wish to limit the surface to be auscultated,or when the structure of the parts opposes the immediate application of the ear, the stethoscope is used. The form of this instrument is not of much consequence, provided that its ligneous fibres be continuous from one extremity of the cylinder to the other. The rules to follow for the application of the stethoscope in the diseases of the heart, are the same as those for diseases of the chest; it is only necessary to take out the top, which Laennec added to it. The first thing to do in the auscultation of the heart, is to isolate it as much as possible from the sounds which take place in the chest. When these are very intense, it is necessary to tell the patient to hold his breath for a few minutes: applying then the ear over the place where the apex of the heart is seated, we hear sounds, and can determine the modifications which they experience in their force, extent, tone, duration, and rhythm, as well as the modifying anomalous sounds, by referring them to the two functional acts and to the two sounds of the heart. From the apex of this organ we extend the examination to the left, at first transversely, then ascending to the border of the pectoralis major, and descending to the inferior limits of the left hypocondrium (as it is in this space that we find the maximum of the sounds which are produced in the left ventricle), in order to examine whether the normal or abnormal sounds increase or diminish in going towards this point, whether any anomalous sounds are added, taking into account the respiratory phenomena, and the transmission of sounds which may take place in consequence of a disease of the left lung. We then go to the right, and within the space from the apex to the sternum (maximum point of the sounds which take place in the right ventricle), examine the modifications in the phenomena which are perceived at the apex. In this last examination, we must take care, and not be misled by one cause of error. The anomalous sounds of the aorta are often perceived at this point, and may be mistaken for anomalous cardiac sounds. To avoid this error it is suffi-

cient to remark—1st. Their constantly synchronous character with the systole of the heart, which belongs to the aortic murmurs. 2d. Their extension over the whole course of the sternum, often even under the linea alba; whilst the murmurs of the right side of the heart may be systolic or diastolic, and never are prolonged to this extent.

"Setting out again from the apex of the heart, we ascend from below upwards, over the course of this organ to its base. In our progress, the modifications which the normal sounds undergo, and the changes taking place in the anomalous ones as heard at the apex, are rendered evident. We make the same examination when we have reached the base, and we note in the course of the pulmonary artery, then of that of the aorta and its ramifications, what modifications the normal or abnormal sounds undergo; and whether new ones are developed. We follow these sounds, particularly in the brachio-cephalic trunk, the subclavian, the external primitive carotid, sometimes the internal, by applying the stethoscope on the base of the orbit, as M. Gendrin does. We then follow the course of the aorta in the abdomen, and of its iliac and crural branches.

"The investigation to be made respecting the arterial circulation demands much care. Thus, when we examine the arteries which are enclosed in the thoracic cavities, we must, as much as possible, isolate the sounds of these vessels from the respiratory sounds, and especially from the normal and abnormal ones of the heart. In the abdomen, we must also distinguish the arterial sounds: 1st, from those of the heart, which latter sometimes extend even to the abdomen; 2d, from intestinal borborygmi; 3d, from the muscular sound which is developed in the abdominal parietes when they are not sufficiently relaxed, and when they contract under the pressure of the stethoscope. When, on the contrary, we examine arteries which are only covered by soft parts, there are some especial precautions to take. We must not press too much with the stethoscope, nor relax the parts which cover the artery. When we auscult the arteries of the neck, the patient should have his head supported by a pillow, and a little stretched, but the face turned forwards. Next we must examine by making the parts tense: in the neck we turn the head to the side opposite to that on which we examine, raise the chin, &c., to ascertain whether the modifications of the arterial sounds are similar on both sides. At the same time we recognise by the touch the state of these arteries; we study the effects of pressure on them, the modifications of the

beats, in their force, frequency, and rhythm. Resuming the exploration of the trunk behind, we ascertain, over the course of the lateral parts of the spine, whether the sounds of the heart and great vessels are heard in these points, and what are the modifications which they have undergone.

"Finally, we conclude by noting the color of the face, the state of the cutaneous capillaries, and of the different mucous apertures, the state of the pulse in different parts of the body, the condition of the viscera; at first of the lungs, then of the abdominal contents: we carefully note, also, the state of the abdomen, the presence of infiltrations, or serous effusions, &c.

The author speaks of the affections of the heart under three heads: *inflammatory diseases; organic diseases; and nervous diseases.* Under the first are embraced pericarditis, carditis, endocarditis, and arteritis; under the second, hypertrophy, atrophy, and dilatation of the heart; partial dilatation or true aneurism of the heart, softening, induration, excessive adipose deposit and fatty degenerations of that organ; osseous, cartilaginous, and other accidental productions in the muscular tissue of the heart, and on the pericardium; diseases of the valves and orifices of the heart, aneurism of the aorta, of the pulmonary artery, and malformations of the heart; and under the third, palpitations and syncope, to which an appendix is added on hydro-pericardium, hemo-pericardium, and pneumo-pericadium, and on polypi, or sanguineous concretions of the heart.

Passing over the symptoms and causes of pericarditis, we quote the remarks of our author on its

"*Diagnosis.*—When the pain is seated in the præcordial region, and is aggravated by pressure; when there is increased action of the heart, and a violent febrile reaction, the existence of pericarditis may be suspected. If, besides, the pulse is feeble, trembling, irregular, &c., without our being able to detect the cause; if we observe all the signs of embarrassment in the circulation: and finally, if there is dulness on percussion, and obscurity in the sounds of the heart, there can be no doubt of the existence of pericarditis. But it may so happen, that there is neither pain nor considerable change in the pulse, no difficulty of respiration, no dulness appreci-

ble by percussion, nor feebleness of the sounds of the heart. If, however, the beatings of the heart be violent and bounding without any manifest cause; if there be anxiety and a high febrile reaction; and finally, if we recognize the friction sound of the pericardium, there is little danger of our being mistaken in diagnosticating pericarditis. As we have already seen, the diagnosis of acute pericarditis, in which we are assisted not only by general symptoms, but also by the results of percussion and auscultation, presents great precision. The most difficult cases are those complicated with diseases of the brain and other organs, and which divert the attention that ought to be given to the examination of the heart. We may say plainly, if it was a general custom to place the hand over the præcordial region, as often as it is placed on the pulse in all inflammatory diseases; if the heart was examined with as much care by percussion and auscultation as the lungs are, it would be a rare occurrence to mistake a pericarditis. This pretended diversity and variability of the symptoms, in which most of the pathologists now place the cause of obscurity of pericarditis, are still not without value in throwing light on the disease. Although they may cause temporary hesitation in the mind of the physician, yet they furnish valuable indications. These multiplied variations are in a direct proportion to the nature and progress of the anatomical changes of structure, and consequently to the progress and the stage of the disease. Generally, it is in the difference of the quality and quantity of the effusion that we must seek the difference in the aspect of the symptoms. If the effusion consists principally of plastic lymph; if the serosity has been rapidly absorbed; in a word, if the adhesions of the pericardium are rapidly formed, the movements of the heart present, during the whole period of the disease, the same vigor and regularity as at the beginning; the pulse retains its characteristic force, hardness, regularity; the patient is less constrained in his postures, and life may continue for several weeks, even though the inflammation has not been removed. This mild form of the disease is observed still better when, instead of producing adhesions of the pericardium, it rapidly progresses to the state of resolution. If, on the contrary, the serous effusion be not absorbed, the movements of the heart are impeded by the mechanical compression of the liquid on this organ; and hence ensue a small, intermitting pulse, and all the symptoms which announce embarrassment of the cardiac circulation, such as feebleness, dyspnœa, anxiety, coldness of the extremities, lividity of the integuments, &c. If the serous effusion be

abundant at the beginning, all these symptoms manifest themselves early in the disease; but as, in general, two or three days are required for a considerable accumulation of the liquid, to those which we have just described, suddenly succeed the symptoms indicating a strong and regular action of the heart. It must, however, be confessed, that there are certain cases of pericarditis, in which all the symptoms of difficulty of the circulation are observed, and there is still very little effusion of liquid. In most of these, there are very thick false membranes which act on the heart, in the same manner as the effused liquid; in other cases, it is impossible to explain the occurrence of the accidents otherwise than by supposing complications of other cardiac affections (carditis, endocarditis, polypi of the heart), or of the pulmonary organs (pleurisy or pneumonia), or by an increase of irritability. According to M. Bouillaud, the great differences observable among the general symptoms of pericarditis depend rather on a violent pleuritic or pleuro-pneumonic complication, than on the pericarditis itself. No doubt these complications aggravate the symptoms, and impart to them the highest degree of intensity; but this opinion of M. Bouillaud cannot be admitted in an absolute manner, since we often see pericarditis with dangerous symptoms, without any trace of complication. We have now considered the general diagnosis of pericarditis; there yet remains to be noticed the differential diagnosis.

"Pericarditis can only be confounded with inflammation of some one of the thoracic viscera, and especially of the pleura. These complications which, from the time of Corvisart, were one of the greatest obstacles to the diagnosis of pericarditis, no longer embarrass us, since the introduction of auscultation. It is well known that pleurisy, independently of the general signs, is recognized by the following physical ones: dulness on percussion, commencing at first in the posterior and inferior part of the chest, and only extending forwards at a later period in the disease; diminution or complete absence of the vesicular murmur in all the points which are the seat of the dulness; bronchial respiration, and œgophony, when there is only a small quantity of liquid. Pneumonia, besides these general ones, and in particular rusty and viscid sputa, is announced by the following signs: in the first stage, crepitant rhonchus, and commencing dulness on percussion; in the second stage, cessation of the crepitant rhonchus, and of the respiratory murmur; dulness evident on percussion; tubular sound and bronchophony; slight dilatation of the affected side, increase of the vibratory tremor of the voice. In fine,

bronchitis is recognized by the presence of mucous, sibilant, and sonorous rales, and by the absence of anomalous dulness. If no one of these sounds be found, we are forced to the conclusion that the heart is the seat of the disease; but if, on the contrary, some of them are recognized, they should be compared with those which properly belong to the inflammations of the pulmonary organs, taking also into careful consideration the anomalous sounds which supervene in the heart, as well as the direction in which the dulness is perceived. After all, if we are in doubt, it would be proper to act as if this inflammation existed, adapting, at the same time, the treatment to the pulmonary complications as they arise; because it is much easier to subdue the diseases of the heart at their commencement, than when they have long had hold of this organ. There remains the differential diagnosis of endocarditis, which will be considered in the following chapter.

"The obscurity of the symptoms of chronic pericarditis, and especially of this disease at its commencement, renders its diagnosis more difficult than that of acute pericarditis. Notwithstanding, with the aid of auscultation, these difficulties in a great measure disappear. In short, if a patient, who had not had previously disease of the heart, presents all the symptoms of this disease, with general emaciation and hectic fever; if he refers the attack of the disease to a blow or fall on the chest, to acute articular rheumatism, or to an inflammation with pain in the præcordial region, we may suspect chronic pericarditis; if to all these symptoms be added dulness on percussion, or the pericardiac friction sound, no doubt can exist respecting the existence of this disease."

Nothing concerning the treatment of the disease is submitted which would be new to the American practitioner. An inflammatory affection of such a part imperiously calls for antiphlogistic measures.

General carditis, Aran thinks, is not so rare a malady as Laennec supposed it to be, and he is inclined, with Bouillaud and Professor Gross, to refer to inflammation of the heart, the softening as well as the induration frequently met with in that organ. He gives the following symptoms:

"The disease begins by a peculiar uneasiness of the præcordium, with slight pain in this region; palpitations, at first fugitive, and of slight intensity, soon followed by irregular movements; but, notwithstanding these symptoms, the sounds

of the heart are not notably altered, except in their intensity; the dulness of the præcordial region being in its normal condition. Fever is soon lighted up; the pulse becomes strong, full, and resisting; there is difficulty of respiration, with orthopnœa, and extreme anxiety. To this reaction succeeds a period of depression; the sounds of the heart, before so violent, become intermittent; the difficulty of circulation is extreme; the face is flushed; the extremities are œdematous and cold; the dulness of the præcordial region increases in consequence of the congestion of the heart; the lungs are gorged; the pulse is feeble and fluttering; and the patient dies by a species of asyhyxia."

Partial carditis is characterised sometimes by softening or induration of the heart; sometimes by the existence of abscesses or ulcerations on one of its surfaces. Abscesses are more rare, according to our author, than ulcerations; and neither afford any sign by which they can be distinguished from other affections of that organ. Ruptures of the heart are owing most frequently to ulcerations; the other conditions which give rise to it are, ordinarily, softening or fatty degeneration. The author adds,

"These ruptures are most frequently produced by causes depending on violent efforts, paroxysms of anger, external violence, &c. They are announced by the following signs: pungent pain in the præcordial region; loud cries; great paleness; instinctive contraction of the extremities; syncope, though sometimes this affection comes on later; and the invalid, after having remained more or less time in this state, is seized with symptoms of reaction, which causes death in a few hours. According to many authors, in more fortunate cases, all the symptoms are observed to lose their severity; the respiration and circulation are established; the blood is absorbed; a cicatrix forms at the point of rupture, and a cure takes place in fifteen or twenty days. As ruptures of the heart kill almost instantaneously, it is always difficult to recognize the disease before the patient has died; however, when death does not take place so rapidly it may be suspected from the presence of the preceding signs, and of those which announce an effusion into the pericardium. Ruptures can only be confounded with sudden apoplexy, ruptures of the diaphragm, rupture of the large vessels of the chest, or with syncope. Apoplexy, whatever be its intensity, does not immediately stop the beatings of the heart, and these preserve their normal charac-

ter; ruptures of the diaphragm do not kill in so sudden a manner; syncopes do not prevent the pulsations of the heart from being heard, and they cease often, in a certain space of time, by posture and stimulants, &c.; there remains a rupture of the large vessels, especially in the pericardium, which it is impossible to distinguish from rupture of the heart, otherwise than by the antecedent symptoms."

Endo-carditis is the name given to inflammation of the internal membrane of the heart—a disease mentioned by Corvisart, Laennec and others, but which has been investigated with peculiar ability by Bouillaud, who pointed out the coincidence between this affection and acute articular rheumatism. We again copy from the Manual our author's remarks on the diagnosis of the disease:

"As a general rule, when called to a patient presenting, 1st, a violent febrile reaction; 2d, an active impulse of the heart; and, 3d, an intracardiac murmur (blowing sound) which did not exist before, we may admit the existence of endocarditis.

"There is one point on which we insist; it is the differential diagnosis of pericarditis and endocarditis; independently of some differences in the general symptoms (as the greater intensity of pain in pericarditis, and the rapidity with which dangerous complications supervene), the differential diagnosis of these two diseases rests, in a great measure, on the dull and stifled character which the sounds of the heart present in pericarditis, and on the differences which exist between the friction sounds belonging to the pericardium, and the valvular murmurs. Now is the time to make known the differential characters of these two sounds:

Valvular Intra-cardiac Murmurs.	*Friction Sounds.*
1st. The valvular murmurs are always deeply seated and distant.	1. The friction sounds are always superficial, and take place immediately beneath the ear.
2. They are commonly simple.	2. They are most often double.
3. They generally have a soft character (that of the bellows sound), at least in acute endocarditis.	3. They are rough, and when they coincide with the valvular murmurs, they are perceived, in some measure, through the medium of these last.
4. The murmurs with the second sound, or diastolic, are very seldom rough.	4. The diastolic sounds which present rough characters are probably friction sounds.
5. The valvular murmurs once established, very slowly change their nature, and never their seat.	5. The friction sounds rapidly and frequently change their nature and their seat.

Of the treatment, the author remarks,

"The treatment of acute endocarditis ought to be neither less prompt nor less vigorous than that of pericarditis. We must not be misled by the apparent lightness of the symptoms, and we should never forget that an organic disease of the valves, whose development it is necessary to guard against, may supervene.

"When called to a case of endocarditis in the commencement, if the patient is well constituted and young, the antiphlogistic treatment should be rigorously made use of; repeated bleedings, after the method of M. Bouillaud, will be required, and produce the best results. When the patient is feeble, or very old; when he is affected with a former disease, or under the influence of some debilitating operation, it is proper to try only one general bleeding, and to renew local bleedings (leeches, cups); in some cases where endocarditis is only a very feeble element of the disease (as in certain acute articular rheumatisms), we may, when the general symptoms are not severe, limit ourselves to the treatment of the primitive affection. We have seen rheumatic endocarditis cured under the tratment directed against the rheumatism.

"When we have exhausted, without any beneficial result, all the antiphlogistic measures against endocarditis, such as general and local bleedings, diluting drinks, cataplasms, general baths, rest, and diet; or when fulness, or some particular conditions contraindicate their application, it is proper to have recourse to repeated blisters over the præcordial region. This is an excellent measure, and if we place on the denuded surface of the skin from 30 to 40 centigrammes of powdered digitalis, we may often notably diminish the feeling of uneasiness which the patient experiences in the region of the heart. It is almost always proper to add to the employment of blisters that of revulsives to the intestinal canal; and finally, when there is danger of the endocarditis passing into the chronic state, a deep cautery, which will suppurate and keep open, over the region of the heart, in order to exercise a powerful revulsion, at the same time that the patient is placed in a state of absolute rest, and submitted to cooling regimen. It is in this last case that we can have recourse to the treatment of Hamilton; that is, mercurial frictions over the region of the heart, and, internally, mercury combined with opium; digitalis and hyosciamus should also be used internally."

Hypertrophy of the heart, investigated by Corvisart under the name of active aneurism, is a disease of very frequent appearance, and the study of the causes which excite so formidable an affection is interesting. We are acquainted with a young man in whom it followed a fall from a tree, by which he sustained a violent shock: other causes are thus detailed:

"1st. *Physical Causes.*—Under this head are included all those which accelerate or retard the circulation, and augment the pressure of the blood on the heart. This class comprehends all violent and prolonged efforts (causes which accelerate the circulation); numerous alterations in the aorta, the valves of the heart, and the pericardium (as adhesions of the pericardium); certain pulmonary affections (emphysema, asthma, chronic catarrh); all abdominal diseases which cause the diaphragm to be forced upwards (the use of too tight corsets, &c.); all causes that embarrass the circulation, and increase the pressure which the blood exercises on the heart. 2d. *Physiological causes:* all moral emotions; all disorders of innervation that induce frequent palpitations. 3d. *Pathological causes:* inflammation, either of the heart itself, or of its two serous envelopes. So far we have considered the development of hypertrophy as subordinate to mechanical causes only; but it is now clearly shown, that chronic inflammation, whether original or consequent on acute inflammation, may cause hypertrophy of a muscular organ; this inference may very justly be drawn as regards the heart, or central organ of the circulation. Consequently, we are forced to admit, that when an organic lesion, the consequence of inflammation, has caused hypertrophy, the inflammation itself has contributed its share to produce this alteration.

Diagnosis.—Hypertrophy of the heart is distinguished, 1st, from *pericarditis*, by the nature of the dulness, the force and energy of the impulse, the absence of the friction sounds, and the reactional phenomena which belong to this disease; 2d, from *endocarditis*, by the increased extent of dulness, absence of the murmurs, and sympathetic phenomena, which accompany this disease; 3d, from *pleurisy with effusion*, which sometimes forces the heart under the sternum, by signs which announce this alteration in the seat of the organ, and the absence of that dulness in the posterior part of the thorax which belongs to pleurisy; 4th, from *pulmonary emphysema*, by the normal resonance of the whole chest, and dulness in the præcordial region.

"*Treatment.*—The first indication which is presented in hypertrophy, is to remove the known exciting causes, as corporeal exercise, intemperance, moral emotions, &c.; then it will be proper to have recourse to a measure (*sanguineous depletion*) which has been always recommended, but differently employed, in the treatment of this disease. Laennec after the example of Albertini and Valsalva, suggested very large bleedings, at intervals of two, four, or eight days; and a reduction gradually of the quantity of nourishment to fourteen ounces a day. This treatment should be continued for many months, at least; sometimes for several consecutive years. The end proposed by Laennec, is to unload the cavities of the heart, and to diminish the stimulating action of the blood and the active nutrition of this organ. The treatment of Albertini, applied rigorously, often counteracts its intention, and may hasten the death of the patient. We think that an equally fortunate result may be obtained by a mode which is more advantageous to the patient; which is, to draw six or eight ounces of blood, by venesection, every fifteen days or a month; according to the age or strength of the subject, and afterwards to have recourse to local bleedings, behind the ears, or over the præcordial region, if there be symptoms of cerebral or cardiac congestion. The nourishment should consist, during the first two or three months, of fresh fish, vegetables, and farinaceous articles, (only feeble persons may eat a little meat); the nourishment should be small in quantity, and the meals light, and so arranged as to satisfy the appetite, without overloading the stomach. The patient should have water, slightly flavored, for drink; those who are feeble may drink a little wine largely diluted. All kinds of exercise on foot should be prohibited; but riding in a carriage will be found useful. It will be well, during the first period of the disease, to join, to the use of bleedings, saline purgatives with the view of preventing constipation, and of producing a slight revulsion on the intestinal canal; the use of nitrate of potassa, digitalis, and other diuretics, will be indicated, even when dropsy has not appeared. Digitalis, independently of its diuretic action, has the property of rendering the beats of the heart slower, and of considerably diminishing their force: given in the dose of one grain to four grains of the leaves, or of ten to thirty drops of the tincture, it generally produces good effects. It is especially useful in simple hypertrophy, less so in hypertrophy with dilatation, and would be very pernicious when the dilatation has reached to a great extent. This medicine ought not to be continued during the whole period of the disease, as some persons practice. When we have obtained the

effects which we expected, it is proper to suspend its use, in order to recur to it at a later period with advantage; if the digitalis be constantly employed, it will produce disorders of the digestive canal; cardialgia, nausea, vomiting, &c. There are some persons whose stomachs cannot tolerate it at all; in this case it should be used by enema, or the endermic method should be tried.

"When the dropsy is perfectly well marked, we have recourse to the most active diuretics, and to hydrogogues. (See *Treatment of the Diseases of the Valves.*)

"Under certain circumstances, where the irritation of the nervous system continues, notwithstanding the most judicious measures, it will be found useful to administer some sedatives, as hyosciamus, one grain to four grains of the extract, the acetate or hydrochlorate of morphia in doses of from a tenth to a fifth of a grain, &c.

"The employment of iodine and mercurial frictions, as absorbents, has been proposed: but the results have not answered expectation.

"The treatment which we have just proposed, and which is very similar to that which Hope employed in his large practice, ought, in order to succeed, to be perseveringly continued for two or three years; and it will be necessary, for one or two years more, to take proper precautions in order to avoid relapses; but, although the treatment be thus prolonged, the patients easily submit to it, since it does not give them much trouble or distress."

Atrophy of the heart presents three variations:—1. *Simple atrophy*, the walls being attenuated without any notable change in their capacities, but with an appreciable diminution in size; 2. Atrophy with dilatation; 3. Atrophy with contraction. It is characterised by signs the opposite to those of hypertrophy—they are as follows:

"*Local Symptoms.*—Beats of the heart, short and feeble; impulse hardly appreciable; sensible diminution in the dulness on percussion; extreme feebleness of the sounds of the heart, which are slow and regular.

"*General Symptoms.*—Atrophy often exists for a long time, without being accompanied by general symptoms; individuals, who are affected with it, are predisposed to anemia, to syncope, and to other nervous affections. In some cases, however, we observe shortness of breath on the least exertion,

palpitations without energetic contractions, discoloration of the integuments, and a precarious and sickly existence, œdema, and death, in a state of exhaustion.

"The treatment of atrophy is governed by the exciting causes."

We find it impracticable in the limits at our disposal, to give any satisfactory account of the remaining chapters of this practical little monograph, which, however, we deem of the less consequence, since all who are not familiar with the subject, and are beginning to feel an interest in its investigation, are pretty sure to possess themselves of the work. We close our notice of it with one extract more, relating to a cardiac affection not so formidable as many others, but distressing in its nature, and more frequent in its occurrence than any other malady of that important organ. We allude to *palpitations:*

"Palpitations consist in an increase of the force and frequency of the pulsations of the heart, so as to render them perceptible, and even disagreeable to the patient. They vary in force, from a degree in which they are hardly sensible to one of great violence. The patients often hear the pulsations, especially when they lie on the left side; even the two sounds of the heart may be distinguished in this posture. During the palpitations, the sounds of the heart ordinarily increase in intensity; and, in some circumstances, a slight bellows sound is produced, which ceases and disappears when the circulation has regained its natural quietness. Palpitations are also accompanied by a slight peripheric friction sound, which is dry and superficial, and due to the rapidity with which the two folds of the pericardium glide on each other: it disappears with the cause which originated it. At the same time, the arterial diastoles are short and quick, and the veins of the lateral parts of the neck are swelled and distended. Palpitations, when prolonged, always cause a sensation of uneasiness and anxiety in the præcordial region, and of fatigue in the whole extent of the chest; also, quickness of breathing, sometimes even extending to syncope.

"Palpitations form two great classes; viz: those which are caused by a material alteration of the heart, (*palpitations from organic cause*), and those which arise from a nervous cause (*palpitations from inorganic cause*), and are not referrible to any material lesion of this organ. *Palpitations from organic*

cause are distinguished from the others by their permanence and tenacity, by the great irregularity which they cause in the pulsations of the heart, and in the sounds, which are considerably feebler than common, and, finally, by the existence of the signs peculiar to the affection of the heart which has produced them.

"*Nervous palpitations*, of which only we intend to speak here, constitute a very troublesome disease. They present many varieties which it is important to distinguish, because their treatment is different, and sometimes even opposite. Everything else being equal, they are more violent in proportion as the patients have a more nervous constitution or a more irritable temper.

"In the *first variety* we shall place palpitations induced by strong mental emotions, by hysteria, hypochondriasis, nostalgia, excessive labour, particularly in the night, venereal excess, dyspnœa, &c. These are nervous *palpitations, properly so called.*

"In the *second variety* we place palpitations produced by the abuse of spirituous drinks, and by exciting regimen, and especially by plethora (*plethoric palpitations*).

The *third variety* will consist of palpitations which appear in individuals who are anemic and chlorotic, and which are owing to an impoverishment of the blood (*anemic palpitations*). These last palpitations are very often confounded with palpitations from organic causes, although it is easy to distinguish them by a close examination; for all the characters of anemia and chlorosis are present. We assure ourselves that the heart has not increased in size, that its orifices are in their natural state, and that the valves are completely closed. In speaking of the intra-cardiac murmurs, we have already given the means of distinguishing murmurs by organic causes from the murmurs by inorganic causes. We shall not repeat them here. The case most difficult to be recognized would be that where palpitations from organic and inorganic cause existed at the same time.

"*Progress, duration, termination.*—The progress of palpitations is always irregular; they ordinarily return in paroxysms at more or less distant intervals. As to their duration, they vary according to a number of circumstances, and especially according to the cause which has produced them. It is difficult to fix a termination to so transient an affection. It may, however, be said, that when they are prolonged, or are repeated for a long time, they finish by causing hypertrophy or dilatation of the heart.

"*Treatment.*—The treatment of palpitations is entirely subordinate to the causes which have produced them; and to the ascertaining of these must the efforts of the physician be directed. Palpitations from moral causes can only be managed by moral treatment. This last is not so successful against palpitations produced by hysteria or nostalgia. As to those which are produced by dyspepsia, the means which are commonly directed against this affection of the digestive canal should be employed. Plethoric palpitations require a more active treatment. Sanguineous depletions, moderate regimen, exercise, are the means which succeed the best. In anemic palpitations, tonics should be had recourse to, as well as the chalybeate preparations, cold baths, nourishing food, moderate exercise. The effects of chalybeates may be considered as the test of these palpitations. If they do not succeed, an organic affection is to be feared. The preparations and mode of administration must be varied. Among those of iron, we place, in the first rank, the subcarbonate and lactate of iron."

Y.

ART. VII.—*A Treatise on Dislocations and Fractures of the Joints.* By SIR ASTLEY COOPER, Bart. F. R. S., &c. *A new edition, much enlarged.* Edited by BRANSBY B. COOPER, F. R. S., &c. With additional observations, and a memoir of the author. Philadelphia: Lea & Blanchard. 1844. 8vo. pp. 499.

This Treatise has been long before the profession, and the new edition of it, published under the superintendence of the Committee on Publications of the Massachusetts Medical Society, embraces valuable improvements, as well in the matter of the work, as in the style in which it has been brought out. It is as tasteful a volume as the student could desire to see—on a neat, clear type, white paper, and with numerous wood engravings of capital execution. As to matter, it is an embodiment of the results of the large experience and observation of Sir Astley's long life. It is one of the best productions of the first surgeon of his age—an eminently practical treatise on subjects of the highest interest to the practitioner. No cases oftener occur in the practice of a young surgeon than those of dislocations and fractures, and none, we may add, are more frequently mismanaged. Let every young practitioner make

himself familiar with the principles laid down in this work, and cases of malpractice, in casualties of the sort, will become matters of less frequent occurrence.

From the interesting memoir of the author, prefixed to this volume, we make a single short extract—it is a part of the account given of the examination of his body, after death:

"Sir Astley had requested the examination," says his biographer, "and had directed the attention of the examiners to several points of inquiry; to wit, to the marks of an umbilical, and an inguinal hernia, of each of which he had been cured; to some suspected indications of phthisis in his youth, and of which several individuals of his family had died, and an inability to sleep when lying on his left side.

"Some remains of both the hernia were discovered; and at the superior and posterior part of the right lung was a small depressed and somewhat contracted surface, about the extent of a sixpence; a section of which exposed a calcareous mass, very uneven upon its surface, and about equal to the size of a small pea."

Selections from American and Foreign Journals.

On the successful employment of Belladonna as a prophylactic during the prevalence of Epidemic Scarlatina. By M. Stievenart, of Valenciennes, (*Bulletin de l'Academie Royale de Medicine*, February, 1843.)—An epidemic scarlatina ravaged, during the winter of 1840–1, several villages in the neighborhood of Valenciennes, when Dr. Stievenart was induced to try the prophylactic properties which belladonna is said to possess against this disease. In a small village, out of 250 individuals, 200 took belladonna, and were all preserved from the attacks of scarlet fever. Of the 50 others, 14 were siezed with the disease, and four of them died. At the village of Curgies, Dr. Stievenart administered the belladonna to the children at the public school, and allowed them to continue at their lessons and have communication with the other children of the village. All to whom the belladonna was administered escaped the scarlet fever; but a few who refused to take it were seized with the disease.

The belladonna was administered in two forms; in solution, or as a powder. Two grains of the recent alcoholic extract of belladonna were dissolved in an ounce of any aromatic infusion, and of this two drops were given to a child of one year old daily for nine or ten days. An additional drop was given for every additional year of age. The largest daily dose was, however, limited to twelve drops. When the belladonna was given in the form of a powder, half a grain of the powder of the root was mixed with a small quantity of sugar, and divided into ten doses. One of these was given morning and evening, to children of from one to two years old; two powders, morning and evening, to those from three to five; three powders to those from six to nine; four to those from ten to fourteen; and five to adults.

These small doses never produced the toxicological effects

of belladonna; in fact, they scarcely ever had any marked action on the animal economy. In five or six cases Dr. Stievenart observed a rash, similar to that of measles; and, in a few other cases, headache with dilatation of the pupils, dryness of the throat, and slight sore throat, but which had no resemblance to that of *scarlatina anginosa*. In all the others, no sensible or apparent effect resulted from the administration of the remedy.

Dr. Stievenart generally continued the use of the remedy for from nine to ten days; in some cases, it was given for fifteen days. He thinks this period sufficiently long to put the system under the influence of the preservative powers of the remedy; but recommends to return to it if the epidemic return or break out again with renewed violence.

A few of the recorded instances in which belladonna has been successfully administered as a prophylaxis, are noticed. Bayle, in 1830, published a notice on this subject, by which it appears, that of 2027 individuals to whom belladonna was administered, 1948 were preserved from scarlet fever, and 79 were attacked with it. Dusterberg, by means of belladonna administered for two weeks, preserved from scarlet fever all those who took the medicine. In order to ascertain the real value of the remedy, he purposely omitted to administer it to one child in every family, and this child alone, according to his report, was seized with the disease. He adds, however, that scarlet fever occasionally siezed a child who had only been taking the remedy for three or four days, but was always in this case mild, and often only manifested its presence by desquamation ensuing. Reuch, physician of the Military Hospital for Children in the Tyrol, after eighty-four children were siezed with scarlet fever, was induced to try the prophylactic effects of belladonna on the remaining sixty-one children. With a single exception, all were preserved from its attacks, though the disease was raging around. Schenk, Berndt, Kohler, Meglin, De Lens, and other distinguished physicians, speak in equally high terms of the prophylactic properties of belladonna. *Edinburgh Med. and Surg. Journal*, October, 1843.

Seats of Tubercle.—Laennec believed that the right lung was the most frequent seat of tubercles; Louis thought otherwise. Of 250 cases of pulmonary tubercle recorded by Dr. Hughes (Guy's Hospital Reports), in 166 the left lung was found chiefly diseased, and the right in 89, while in 45 cases

doubt existed as to which was the most diseased side. It would appear from the above partial experience that, contrary to the opinion of Laennec, the left lung is the most liable to tuberculary deposit. Of the 116 cases of disease in the left lung, 43 per cent. occurred in males, and 53 per cent. in females; while of the 89 cases of disease in the right side, 38 per cent. were in males, and 30 per cent. in females; therefore females would appear to be most liable to tubercle in the left, and males to tubercle in the right lung. Of the total 250 cases, the upper lobe of one or both lungs was solely or principally diseased in 237, or 95 per cent.; of the remaing 13, in 9 cases both lungs were uniformly diseased; and in only one case were the upper lobes free from tubercles. Of the same total number the per-centage of the sexes was about equal in deaths from tubercular phthisis under twenty years of age (viz: 8 per cent. of males, and 7 per cent. females); of those dying between tne ages of twenty and thirty, 41 per cent, were males, and 49 per cent. females; of those between thirty and forty, the per-centage was again nearly equal (viz: 26 per cent. for males, and 27 per cent. for females); and between forty and fity, the deaths of males were 23 per cent., and those of females 19. It would thus result that females were comparitively more liable to die of phthisis between the ages of twenty and thirty, and males between forty and fifty. *London Lancet.*

Remedy for Cough.—The abrupt violation of the decencies of social existence is one of the most annoying consequences of coughing and sneezing. If you happen to have a catarrh, and are not endowed with sufficiently strong powers of mind to be able to resist a paroxysm of coughing, place the end of your fore-finger upon the end of your nose, if you have a nose. In the absence of this central organ, rub your eyes as if you had been magnetized, and look at your watch. If the fit of coughing does not pass off, you will at least pass for an accomplished gentleman.—*Med. Chi. Rev.*, October, 1843.

An Elegant Sticking Plaster.—Black silk is strained and brushed over ten or twelve times with the following preparation:—Dissolve ℥ss of Benzoin in f℥vi of rectified spirit; in a separate vessel dissolve ℥j. of isinglass in water; strain each solution, mix them, and let the mixture rest, so that the gross-

er parts may subside; when the clear liquor is cold it will form a jelly, which must be warmed before it is applied to the silk. When the plaster is quite dry, in order to prevent its cracking, it is finished off with a solution of terebinth. chia. ℥iv. in tinct. benzoes f℥vj.—*Medical Times*, April 15, 1843.

On the Use and Abuse of Filing to remove Irregularities of the Teeth.—There are many instances in which it is advisable and safe, as well as ornamental, to file the teeth; but as it is usually practised, nothing can be more pernicious.

Since it cannot be supposed that any man is so lost to shame and humanity as to expose his patient to pain and inconvenience during life, merely for the sake of a trifling fee, the indiscriminate filing of teeth, so common at present, should be imputed only to ignorance, and may, I hope, be checked, by placing the subject in a clear light, and by drawing the line to distinguish where it may, and where it may not, be practised with safety.

1. In people far advanced in years, the teeth may be filed into order without any inconvenience; because the nerves are lost, the teeth can feel no pain in the operation, nor afterwards from colds, acids, or sweets, and because they are not then so much disposed to caries or decay.

2. Where a tooth projects beyond the common level, and hinders the rest from meeting equally, or receives, on itself alone, all the pressure which should fall divided on a whole set, there filing is necessary, at any age, to remove the greater evil.

3. Filing is necessary and advisable to remove sharp points occasioned by fracture or otherwise, which irritate and wound the lips and tongue; because, in this case, the bony part of the tooth is already exposed, and cutting off the sharp prominces cannot make it more liable to caries or pain than it would otherwise have been.

4. Where a tooth points obliquely against the tongue, or against the lips, as often happens on account of the resistance of the milk-teeth, it is necessary to round the edge by filing, to prevent its wounding the soft parts.

5. When the edges of the fore teeth are uncommonly sharp and thin, and therefore apt to splinter, it is very proper to file them down, to give them a more obtuse and durable edge.

6. Filing is likewise advisable to remove caries, to prepare a tooth for the reception of a new crown, and in a few similar cases, related in the second part of this treatise.

7. When the teeth stand irregularly, and are too broad to admit of being reduced to one uniform line, filing between them may be practised to a certain degree; but great care should be taken not to cut away the enamel totally, as is too often practised on this occasion.

If a man had no feeling, nor any other use for his teeth but for the ornament of his countenance, I should not limit the use of the file to these cases only. But since most people, from infancy to middle age, feel insufferable pain the very moment the file touches the bony substance, and since this pain must be very often repeated, because each successive surface of the osseous substance must have some time to wither, and lose a part of its sensibility before it can admit of filing beyond a certain depth; since it happens, likewise, that the enamel once removed, is never regenerated; that a tooth in this naked state is for a long time affected with pain from the slightest impressions of cold, acids, sweets, &c.; that it wears away quickly, and is very much subject to decay, I cannot join to support the common practice of indiscriminate filing; I think it should be confined to the cases above related, for I believe it is advisable in these only.

Hence it is, that I so frequently refuse to perform this ornamental operation for my patients, and that I have often advised young people, who have credulously listened to advertisements and promises of this kind, never to barter a sure and valuable blessing for such a painful, dangerous, short-lived ornament: for ill-set or irregular teeth may last healthy and unpaired to the latest period of life, and the deformity in general is not very great, provided they are kept clean, white, and polished.—*Berdmore's Treatise on the Disorders and Deformities of the Teeth and Gums.*

Œdopsophia, or Noisy Expulsion of Gas from the Vagina. This affection occurs in women (especially lame women) whose inferior vulvar aperture is narrow. Oftentimes no symptom precedes it, and the patient is not aware of the existence of the complaint until the noisy expulsion occurs. The distended state of the parts may be felt by examination by the rectum, and the gas in part expelled by pressing on the hypogastrium. When the affection arises from a foreign body in a state of putrefaction, it will cease on the removal of this; but in instances where none such existed, Lisfranc has frequently rendered the patient's condition much more supportable, by instructing her, prior to going into society, or, under any cir-

cumstance where the unexpected expulsion would prove annoying, to secure herself from this, by introducing a finger into the inferior aperture of the vulva, and thus give vent to it. In examining females for other complaints, he has frequently detected this affection, although concealed by the patients, and has always succeeded in affording great comfort by the above suggestion. If the vagina is capable of secreting this gaseous substance, it is from its being in a condition of inflammation or irritation, and therefore means of a mild antiphlogistic character, modified by circumstances, must be had recourse to, *e. g.*, venesection, warm baths, lavements, &c.—*Med. Chir. Rev., Oct.*, 1843, from *Lisfranc's Clinique Chirurgicale de l'Hôpital de la Pitie.*

French Gratitude to Medical Men.—We observe by one of the Paris journals, that the names of *Percy*, *Desgenettes*, and *Larrey*, have been recently engraved on the famous Arc de Triomphe, at the Barriére de l'Etoile.

In some respects, certainly, medical men occupy a higher position in society in France than in this country. For example, who ever heard of a doctor becoming a *Baron*, or peer of the realm with us? and yet every one knows that *Portal*, *Dupuytren*, and *Cuvier*, occupied that dignified rank in the parliament of France; and where is the nobleman of Germany that might not be proud to be associated with a Baron *Humboldt?* True, the circumstance of a French peerage being merely personal, and not hereditary, makes a very material difference in the case; but then, why should there not be a certain number at least—we are no friends to an elective aristocracy, as a general question—of the most eminent men in the various departments of science being admitted to the highest honors of the state, without necessarily entailing upon their families the expensive title which they bore themselves?

By a recent Royal Ordonnance, M. *Louis* has been made an officer of the Legion of Honor, and M. *Leuret* a chevalier of the same Order.

Again, MM. *Andral* and *Rayer*—certainly two of the most distinguished names in French medicine of the present age—have been elected members of the Institute. "The selection of such men," says one of the Paris journals, "shows very emphatically that this illustrious body looks as much to the scientific character as to the practical eminence of its candidates; in a word, that it wants not so much the mere skilful physi-

cian as the enlightened philosopher in its ranks."—*Medico-Chirurgical Review for July*, 1843.

Dr. Sibson on the Means of Determining the Relative Position of the Thoracic and Abdominal Viscera.—At the late anniversary meeting of the Provincial Medical and Surgical Association held at Leeds, Mr. Sibson stated, that in 1836, when examining patients with chest affections, he felt his knowledge of the relative position of the thoracic and abdominal viscera was imperfect and confused. To remedy this he took outline sketches of the viscera from most of the bodies that were dissected in the General Hospital, near Nottingham, at first by the eye, afterwards by the aid of a frame. After some time, Dr. Hodgkin, of London, suggested to Mr. Sibson a very valuable plan, facilitating and rendering more accurate the diagrams. This consisted in placing a frame over which a piece of net or lace was stretched, above the body the organs of which were to be sketched, and by tracing with chalk the outline of each organ, as seen through the gauze. Mr. Sibson then proceeded to give a rapid sketch of the general results obtained by the carrying out of this plan.

The apex of each lung ascends above the clavicle from one to two inches. This is an important practical fact, as by examination of this region tubercles may be detected in their early stage, and long before they have extended to that part of the lung below the clavicle. The inner line of the right lung is behind the sternum for its whole length, whereas that of the centre of left lung diverges obliquely outwards and downwards opposite to the fourth costal cartilage. The lower edge of the right lung is generally behind the sixth costal cartilage; that of the left lung is about a rib's breath lower. The upper margin of the liver, from the dulness of that organ, forms an admirable means for distinguishing the lower border of the resonant right lung. The hollow resonance of the stomach in contrast with the diffused resonance of the lung enables the lower border of the left lung to be defined with equal facility.

In emphysema the chest is constantly in the state of a very deep inspiration; the lower margin of the lung descends several ribs' breadth below its usual seat; at the same time the diaphragm draws down the lungs; it in a like manner and extent draws down the heart. The dilatation of the structure of the lungs is due not to frequent coughing, but to constant efforts, by extreme inflation of the lungs, to relieve dyspnœa,

the structure of the lungs being in this manner overstretched.

In pneumonia, pleuritis, and general tuberculous infiltration of the whole lung, the affected organ is greatly enlarged, the lower margin descends considerably below its normal position, and the walls of the chest on the diseased side are much more expanded than on the healthy one, but the healthy lung expands more than the diseased one on a deep inspiration. In phthisis affecting the summit of the lung, the mass of the lungs does not appear to be much affected in size. In the consolidation and contraction of lung following pleuritis, the whole structure is diminished and the lower margins are raised, their previous position being occupied by the abdominal viscera.

On artificially distending the pericardial sac, it assumes the form of an oblate spheroid, on the top of which is placed a smaller hemisphere which surrounds the great vessels. In pericarditis with effusion, the sac assumes the same form and displaces the lungs to a considerable extent at the upper part of the sternum; it likewise causes the central tendon of the diaphragm to protrude to a great extent into the abdomen, displacing the liver and stomach. In disease of the heart with enlargement, the lungs are displaced to an extent proportionate to the enlargement, but not at the upper part of the sternum; the liver and stomach, the whole diaphragm, and consequently the basis of both lungs, are considerably lower than in the normal state.

In enlargement of the liver the free play of the lungs and heart is interfered with if the patient lies on the left side, the weight of the liver falling upon the heart interferes with its action, and causes palpitation. In persons affected with ovarian dropsy or ascites, the abdominal viscera, and consequently the diaphragm, are pushed abnormally upwards, and the lower borders of the lungs and heart are unnaturally high.

The same state obtains, but to a more extreme degree, when the stomach or intestines are over distended as in dyspepsia, this state inducing palpitation; or in peritonitis, where the enormous distension often seriously interferes with the action of the heart and lungs. In empyema and its extensive pleuritic effusion the diaphragm is more lowered and the abdominal viscera are more displaced than in any other disease of the lungs.—*Med. Examiner.—Provin. Medical Journal*, Aug. 12, 1843.

THE WESTERN JOURNAL.

NEW SERIES.—VOL. I.—NO. I.

LOUISVILLE, JANUARY 1, 1844.

THE WESTERN JOURNAL.

It will be seen that the first number of our *New Series* makes its appearance enlarged in size, and printed on a new type. The publishers thus testify their disposition to render the Journal worthy of success, and although it must be admitted that they have not received as prompt payment from many of their subscribers as they had a right to expect, still they are determined to sustain the work. Arrangements have been made by which, in addition to the American journals now sent us in exchange, the most valuable of the foreign journals of medicine will be regularly received, and we shall have it in our power to give a summary, in each number, of the latest and most interesting medical intelligence. The publishers of medical books in our Atlantic cities have been in the habit of sending many of their valuable publications to the Journal, but hitherto they have not been regularly noticed. This has been a culpable omission, but the editors are not chiefly chargeable with it. The books, in most cases, were directed to gentlemen not connected with the Journal, under the mistaken belief that they would receive the notice due them. We intend, for the future, to bestow much more labor than herefore upon our department of Reviews and Bibliographical notices, and,

with the understanding which now exists between the book-sellers and ourselves, we shall hereafter receive everything new relating to medicine which issues from the American press. If we are not greatly mistaken, we shall be able very decidedly to enhance the usefulness and interest of the Journal by this arrangement Our readers may expect full analytical reviews of every new work recommended by the practical interest of its matter, and notices, however short, of all the publications that come to our hand. Most of the notices will necessarily be brief, but we shall endeavor to give such an account of each production as will enable the profession to judge of its claims to their favor.

Such are the improvements we have made in our plan of conducting the Journal. We are persuaded they will strike our readers as substantial, and we call upon them, once more, to second our efforts to produce a work worthy of the profession in the great Valley of the West. By a little exertion on the part of our friends, our subscription-list might be very greatly extended; thousands of physicians who are not now subscribers to any medical journal, might be induced to subscribe for it, and read it, to their own decided improvement, and the great benefit of their patients. May we not count on their efforts in behalf of our work, and may we not hope to receive more of the contributions of their pens? It is in their power to impart an interest to the pages of the Journal which cannot be given except by original communications. Histories of epidemics, or endemics, histories of individual cases of disease, or operations in surgery, all have their value, and impress a pleasing variety upon the pages of such a periodical. We know many scientific practitioners, many good writers, to whom we are sure this appeal will not be made in vain.

THE NATURAL MEANS OF PRESERVING HEALTH.

We thank our friend, Dr. Deavenport, for a copy of a pamphlet with the above title, written by his neighbor, Dr. J. P. Epperson, of Pulaski, Tennessee. We can readily believe Dr. Deavenport's statement, that the author is a young man of acknowledged talents, and that his present effort is but an earnest of what he can and *will* do in his profession. It is long since we met with a pamphlet containing so much sound thought and good writing, from the pen of a

young author. His subject is one which has been written upon by Johnson, by Combe, by Caldwell, and a host of strong men, but Dr. Epperson has treated it so well, that it assumes in his hands much of the freshness of a new topic. Such a writer may exercise a most healthful influence over the popular mind, for which his present tract was published. The truths he has therein told the people are of vital importance, and are communicated in language so simple and so natural that all can comprehend it, and, we should think, all must admire it. He treats of *exercise, the proper regulation of the mind, pure air, and aliment,* as the means of preserving health, and of eradicating the pre-disposition to consumption, and other hereditary diseases. The pamphlet ought to be extensively read by the people, and if its precepts are heeded, it will avert many an attack of dyspepsia and consumption. The following extracts, taken from different parts of the pamphlet, are but fair specimens of the pleasing manner in which the author conveys his practical truths:

"The first I shall notice, and that which is more frequently neglected than any other, is *Exercise*. If the question were asked, what is the most important rule of health, it might be answered, as Demosthenes answered of oratory, "action! action!" It might as reasonably be expected that vegetation could spring forth, grow, and flourish without heat, light, or moisture, as that the animal frame could be fully developed, and preserved in health, without vigorous *action*. It is an indispensable means; it is indicated by the structure of the human frame; its long levers, and numerous and powerful muscles attached to them,—the arms and the legs, the hands and the feet, and the numerous joints, and their mobility, all obviously indicate that it is formed for vigorous, complicated, and repeated action.

"*Exercise* is an *instinctive* want in the animal economy. It may be seen in the aimless motions of infancy, in the romping of childhood and youth, and in the restlessness under restraint of more mature age. Where nature points out the rule of action, it cannot be disregarded with impunity. Even inanimate things are preserved by motion. The waters are purified by the agitation of streams, waves and tides. The atmosphere by its ever varying currents. Vegetation is continually waved by the veering winds, and is strengthened by their influence. But motion is more especially a function of animal beings, on the exercise of which the perfection of their growth, and their preservation most directly depends."

"Men are always seeking some universal principle, which they expect to do every thing: such as the perpetual motion in mechanics, a universal solvent in chemistry, a panacea in medicine, etc.; and contrary to all experience, and induction from established facts, they are prone to disregard the fixed laws of nature, to run after such fan-

tastical illusions. And of all illusions, that is the most fatal which leads us to overlook the *natural* actions of the system, and the *natural* circumstances by which they are promoted, and to vainly expect benefit from *medicine* in cases, in which, from the very nature of things, it must be inefficient, if not injurious. The influence of medicine on the system is a *borrowed* capital, which is necessary to extricate it from exigencies arising from neglect of the economy of health; but which, if resorted to frequently, must finally exhaust the estate it is intended to save. For medicine cannot create vital action, but can only modify it in a small degree, and its efficiency must be just in proporton to the degree of perfection of the *natural* actions of the bodily organs,—in other words, in proportion to the strength of the constitution. Therefore, to administer medicine with the view to improve the constitution, is to presuppose the existence of that which it is proposed to restore.

"I do not intend by this to disparage medical science; but to limit its application to is proper sphere. Most persons look on medicine as a perfect fountain of absolution, in which they can bathe and be absolved from all the diseases which their violation of the laws of health may incur.

"I do not maintain that human nature could be made exempt from disease and death, by any means. For all organized beings are necessarily subject to these.

"But my position is, that all diseases of the human system will be less frequent, and less severe, in proportion to its development, and maintainance of its organic powers, by the observance of the laws which regulate their actions. In the same manner, that crime will be prevented, in proportion to the judiciousness of legislation, and the excellency of moral precepts observed, although evil be a constituent part of human nature.

"2ndly. That constitutional diseases being the accumulated result of repeated *violations* of the laws of health, can be prevented by continued *observance* of these laws; and that their only cure, is their prevention. And although many diseases might have been placed in this class, I have particularized consumption only, on account of the frequency of its occurrence, and its fatality. And I have noticed dyspepsia in the same connection, because though not properly a constitutional disease, it is curable only by the same means.

"3dly. I advocate the doctrine that an ounce of prevention of disease by *natural means*, is better than a pound of cure by *medicine*. And yet I insist, on the *judicious* use of medical agents as a necessary evil in all diseases, whether unavoidable, or the result of imprudence. But at the same time I insist, that from the nature of the causes which produce consumption and dyspepsia, medicines can only act as palliatives in the treatment of them.

"4thly. And therefore I urge, that the public mind is too much fixed on medicine in the treatment of *these* diseases, to the neglect

of the only possible means of curing them, by avoiding or correcting the causes which produce them.

"And these truths being settled, I base upon them the broad declaration, that whoever asserts that he can cure *any disease* by nostrums, or specifics, or by any mode of routine medication, without regard to the removal of its causes, and to the peculiarities of each particular case, is either grossly ignorant of the true principles of medical science, or is grossly attempting to impose on the credulity of the public; or, more likely both of these, for ignorance and imposition generally go together I make the declaration in this strong language, because I know, and deplore the greediness of the wonder-loving populace to swallow the boasted wonder-workings of quackery, and the restless eagerness of suffering and decaying humanity to grasp continually at the delusive shadows of hope, although constantly deceived by them. It does *seem* that men ought to 'learn wisdom by experience;' but verily, they 'wax worse and worse, deceiving and being deceived.'" Y.

EUPHORBIA COROLLATA.

We extract the following from a letter of Dr. Preston Capshaw, Madison county, Alabama. From the known activity of most or all the *euphorbiaceæ*, we have supposed this intimation of a new property in the *Corollata* not unworthy of notice. D.

The Euphorbia Corollata, or Jacob's Root, has become a common remedy among the populace of this neighborhood, in the cure of Intermittants. The public, and the world, for aught I know, are indebted for the knowledge of its specific virtues, in the above diseases, to a negro by the name of Jacob, who was vending it as a *nostrum*, when I came into the neighborhood four years ago: hence the vulgar name by which it is known to the common people. Jacob, however, did not long enjoy the emoluments arising from the sale of this root. By some means, probably not understood by himself, his secret became known to the people, and has since been extensively used in all the more common forms of intermittant fever.

"Jacob's prescription was a table-spoonful of the powdered root at a single dose, which generally produced vomiting and purging in from one to four hours. Since it has passed into the hands of the public, however, it is seldom pulverised, being prescribed by the *inch*, more or less, according to the diameter of the root, the age of the patient, &c., to be masticated and swallowed after the manner of a raw potatoe, which it is said, in taste, to resemble.

"I am assured by many, who have used it in their families, from one to two years, almost to the exclusion of quinine, that a single

dose of it has cured chills, in the majority of cases in which they have given it. When it fails it is given in like manner during the next intermission, &c.

"My personal experience with the article, is not sufficient to warrant an opinion about it, but I incline to the belief, that its remedial virtues have never yet been fully and properly appreciated by the medical profession. It is certainly a very active medicine, promptly and speedily evacuating the stomach and bowels, accompanied by a sensation of warmth through the course of the alimentary canal.

"It has been given in hundreds of cases, and only one has come to my knowledge, in which it appeared to have operated injuriously: this occurred in a case of *grippe*, where it was given in conjunction with tartar emetic, to a child five years old—an almost fatal collapse was the result."

KENTUCKY LUNATIC ASYLUM.

A brighter day seems to have dawned upon this institution. The Annual Report of the Managers and attending Physicians, for 1843, exhibits an improvement in its administration which will fill many a heart in this Commonwealth with joy. The humane and enlightened practice long since adopted in other retreats for the insane appears, at length, to have found its way into the sylum at Lexington, and is attended with the same happy results—the restoration of many of its unfortunate inmates to reason. It was not so in former times. If one recovered, it seemed to be by accident, or, at the most, by the *vis medicatrix naturæ*. Nor could it well be otherwise. No adequate medical attendance was provided. The salary allowed to the physician who attended was so small that he could not afford to bestow much of his time upon the institution, and no systematic plan was adopted and persevered in for the cure of the insane. In these years—the long period from 1824, when the charity was opened, to 1843, when the present attending physicians entered upon their duties—according to to the report before us, the deaths in the asylum, annually, exceeded 39 per cent. During the past year, the deaths have amounted to a small fraction over 4 per cent. This, as the attending physicians justly observe, is "*a remarkable difference.*" There must be a cause for it, and is doubtless to be found in the circumstances stated in the report.

First, the attending physicians, Drs. Pinckard, Letcher, and Price, on assuming the care of the institution, set about improving the gen-

eral health of the patients. In the second place, they sought to give the inmates of the house all the opportunities for exercise and amusement which the institution afforded. They found that the patients were addicted to the intemperate use of tobacco, and that in nearly every one the general health was seriously impaired by the indulgence. This practice was interdicted, and, the report informs us, the result was soon seen in the comparatively ruddy and robust appearance of those who a short time before were pale and emaciated. Many of the lunatics, too feeble to walk, were evidently suffering for the want of exercise, and from confinement, "for years, in the narrow cells of the asylum." On application by the physicians to the commissioners of the Hospital, carriages were provided for this class of patients. Again, continues the report of the physicians, "as we ourselves are fond of good living, we directed the patients generally to be fed on the best beef and mutton the market affords, and they are now seated at as fine a table as any hotel in Kentucky can furnish." The remedial treatment has been applied with great punctuality and discrimination, and with results, as contrasted with the success of previous years, to which the present faculty of the asylum may appeal with a feeling of triumph. The moral treatment has also undergone a beneficial reform. As an indispensable preliminary to the introduction of the best system, the physicians have commenced a classification of the patients, and although this is not yet perfected, they express a belief that the measure is so far matured, that the best effects may be expected to be developed by it in the future operations of the establishment. At the present time, constant and agreeable occupation is provided for the insane; those who are too feeble to perform manual labor are taken daily in carriages, or other vehicles, into the open air; music and dancing parties have been occasionally introduced with advantage; chains, stripes, and box-houses have been abolished, and, in their stead, a plan of government has been adopted, styled, in the report, "patriarchal"—one characterized by all the respect and kindness towards the afflicted compatible with firmness and decision. Such is the cheering picture given in the report, of the present state and future promise of the Kentucky Lunatic Asylum. We add a few details.

The number of patients in the charity at the beginning of 1843 was 156, to which number 74 were added subsequently, making 230 for the whole year—a larger number, by 20 per cent., than

was ever before in the asylum. Of these, 15 died, 33 were cured, 16 are reported as improved in their condition, and 6 were taken home. Of the deaths, 3 occurred in January, before the present attending physicians assumed their duties in the institution, and 4 occurred so soon afterwards, that they insist on not being held responsible for them. Deducting these from the whole number, it leaves but 8 for the eleven months of their attendance. Of the patients in the house at the beginning of 1843, and admitted during the year, the insanity of 154 was of long standing—that of 34, recent. Among the old cases, 8 per cent. were restored, 2 per cent. were improved, and 5 deaths occurred The recent cases afforded of cures over 58 per cent., of improvement 6 per cent., and of deaths nearly 3 per cent.—fractions being omitted in every instance. The number in the asylum at the end of the year, was 170; of whom 100 are males, and 70 females. The commissioners speak of a farm, rented last year, as having been of incalculable benefit to the patients, affording them the means of healthful labor, and more ample scope for exercise, and they conclude by suggesting that further improvements might still be made in the economy of the asylum, and by recommending to the Legislature, in strong terms, the purchase of fifty or sixty additional acres of land for the use of the institution.

We have been thus particular in our account of this important State institution, because it is an object of deep public interest. We are very often consulted by our friends in other States, as to the most eligible retreat for insane persons, and it affords us unmixed pleasure to be able to present them with so favorable a description of the Asylum at Lexington. In the neighborhood of one of the most beautiful towns in the country, and in the bosom of a cultivated, refined and moral community, with all the advantages of an airy and salubrious situation, there is no reason why, with the proper interior regulations, such as seem to have been adopted, it should not enjoy as much success in restoring the insane to their sound minds as any asylum in the land. Y.

PROFESSOR BACHE'S INTRODUCTORY

This discourse is what it purports to be—strictly an introduction to a course of lectures on Chemistry. It lays down the plan which the lecturer proposes to follow, and discusses, briefly, several topics in the simple, lucid, unambitious style adapted to scientific subjects. The lecture is thoroughly chemical, and is one from which his pupils will derive profit. A very clear statement of Leibig's theory of animal heat and nutrition makes a part of the lecture, and the author, we think, has pointed out one of the premature conclusions, from which it will be admitted by the warmest admirers of the great German Chemist, that his physiological doctrines are by no means free.

Liebig holds that the waste of the organism of animals is repaired by the proteine-compounds of their food—the fibrine, albumen, and caseine, and that gelatine, not being a modification of proteine, takes no part in nutrition, unless it be in that of the gelatinous tissues. The fact upon which he rests this opinion is the starvation of dogs when fed exclusively upon gelatine. But, as Prof. Bache urges, is not the result the same when animals are confined to any single nutritive element? Geese died with the symptoms of starvation, in the experiments of Tiedemann and Gmelin, although they had an ample supply of albumen, the great element of nutrition. In the present state of our knowledge, we are not authorized to say that a substance is not nutritious because it will not, singly, support the life of an animal. The proteine-compounds, containing no gelatine, are adequate to the nourishment of animals. All their organized parts are derived from these compounds, and it follows, that their fibrine or albumen must be transformed by the vital process into the gelatinous tissues. Liebig indicates the mode by which it is done. "But," asks Prof. B., very properly, "why may not the converse operation take place; and if we admit that the vital force can convert proteine into gelatine; why not concede that the same force can change gelatine into proteine, which is equivalent to its change into blood?" We agree with him, that Liebig has here committed an error "in limiting the transforming powers of the digestive and assimilating organs." And we admit it the more willingly, because we have heretofore so freely admitted Liebig's claims to general accuracy, as well as great originality of doctrine. Prof. B. thinks it is conceded

by every one, "that chemical changes are incessantly taking place in living beings, whether animal or vegetable; and he agrees with nearly every one who has examined "Liebig's Animal Chemistry," that it has "lifted a corner of the curtain which conceals from our view what is performed on the stage of the vital organism." But he cautions his students against a too ready admission of what he calls its "presumptuous claim," that the chemists have "penetrated behind the scenes, and witnessed nature in the very act of playing her part in the mysterious drama of life." Y.

ANATOMICAL ATLAS.

The medical profession in the United States, practitioners as well as students, will be obliged to Dr. Henry H. Smith for his beautiful Anatomical Atlas, the first part of which has been issued by the liberal publishers, Lea & Blanchard, of Philadelphia. The work is to be completed in five numbers, and will afford a most admirable illustration of the structure of the human body. That it is issued under the supervision of Professor Horner, to whose Special Anatomy and Histology it is to form the accompaniment, is an ample voucher for its fidelity and value. The original drawings are from the pencil of Pinkerton, who has acquired distinction in this department of art, and the ngravings are in Gilbert's best style, which is the highest compliment that could be paid them. Of the utility of such drawings, the author truly says, there can be no queston. "Separated from the centre of instruction, and deprived of the advantages of the dissecting room, the ideas once so thoroughly acquired soon begin to fade, and the images once so distinct, become confused and mixed. A recourse to plates, in the absence of dead bodies, is then the only means of refreshing our knowledge."

It has been the aim of the author of the Atlas to comprise in it the valuable points of all previous works, to embrace the latest microscopical observations on the anatomy of the tissues, and, by placing it at a moderate price, to enable all to acquire it who may need its assistance in the dissecting or operating room, or other field of practice. The first part contains one hundred and thirty figures;—ninety-two of the bones, and thirty-six of the ligaments.

Y.

WILSON'S DISSECTOR.

To the same prolific press the student of anatomy is indebted for another aid in the prosecution of this important study. Wilson's Anatomy has been much admired for its accurate and beautiful delineations, and the present work lays claim to a portion of the same excellence. It has been arranged to suit medical students in the United States, by Paul B. Goddard, M.D., Demonstrator of Anatomy in the University of Pennsylvania. It strikes us as being all that a "Dissector" could be. The wood cuts are numerous, and will afford the student the most essential aid in the dissecting room. Y.

BOOKS RECEIVED.

We have received from the publishers, Lea & Blanchard, the following works for notice in our Journal: Williams' Principles of Pathology, Harrison on the Nervous System, and Watson's Practice of Physic. They will be reviewed as soon as time and space can be commanded. We have also received from the author, Dr. Edward Jarvis, of Dorchester, Massachusetts, an interesting paper on "Insanity of the Colored Population of the Free States," in which some singular errors in the sixth census of the United States are brought to light. We shall notice the subject in our next number.

WESTERN MEDICAL SCHOOLS.

Kemper College, at Saint Louis, is said to have 90 students in attendance on the medical lectures, this winter. At Cincinnati there are reported to be about 180. A gentleman residing at Lexington, writes to a friend in this city, that the number at that school is 212. The number at the Louisville Medical Institute is 243. We have not heard from either the new school at St. Louis, or the New Orleans school.

THE

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OF

MEDICINE AND SURGERY.

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